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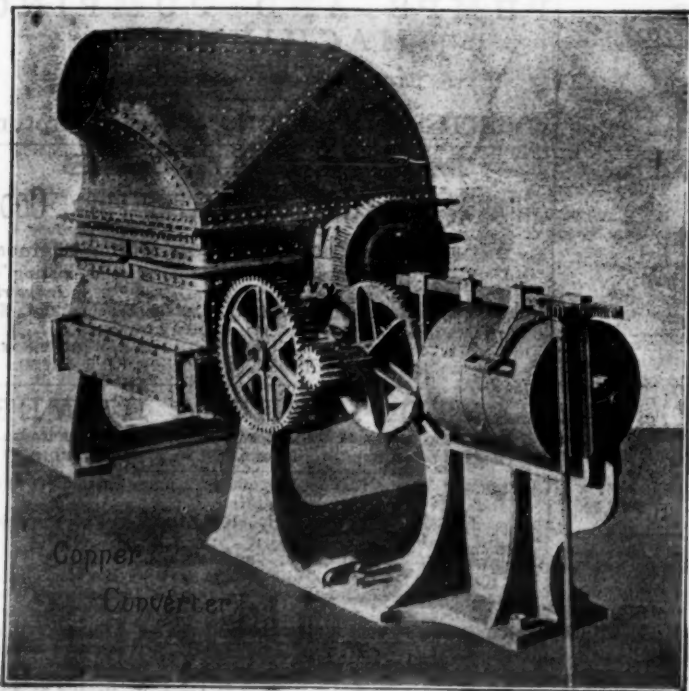
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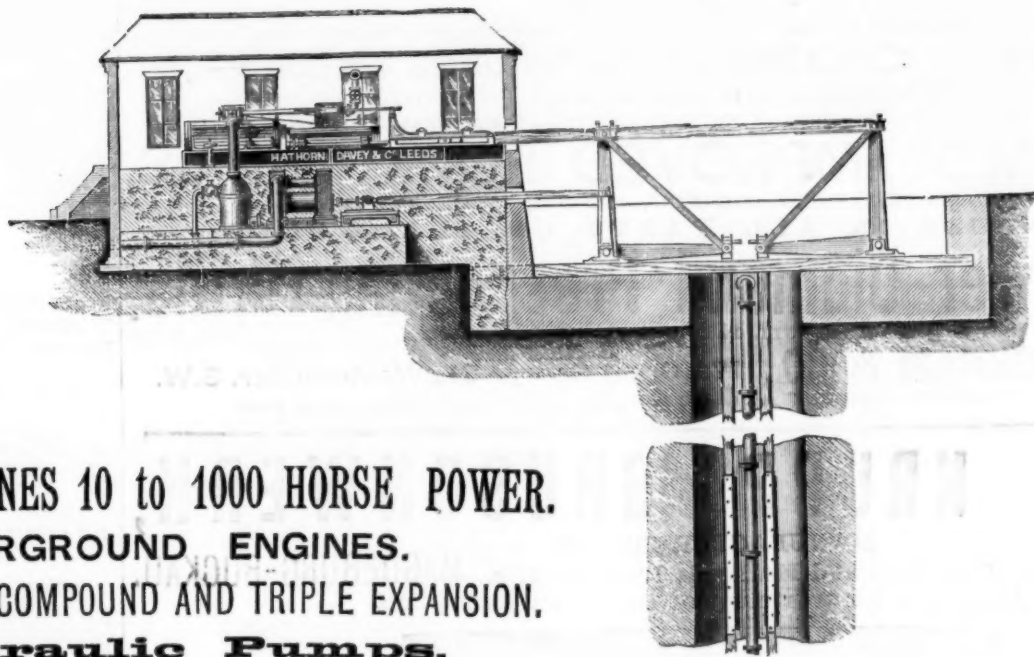
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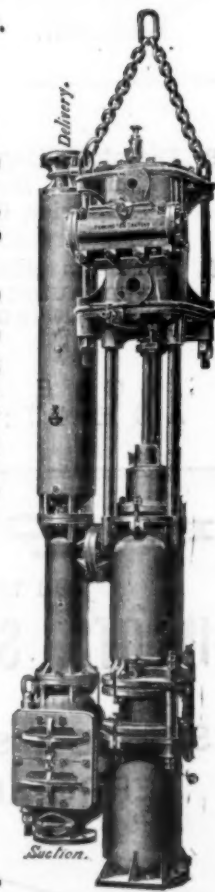
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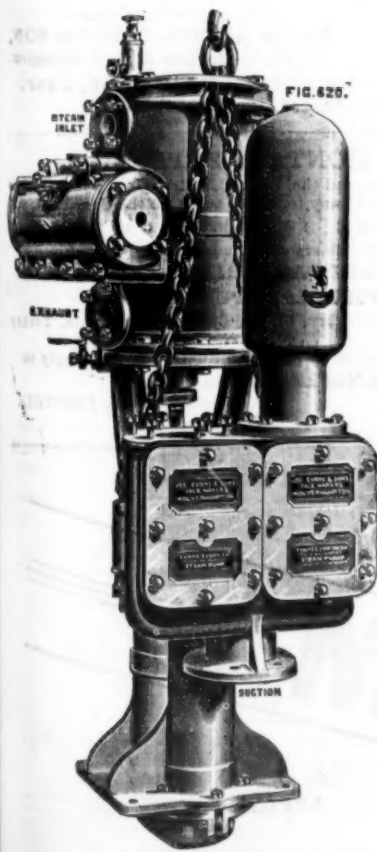


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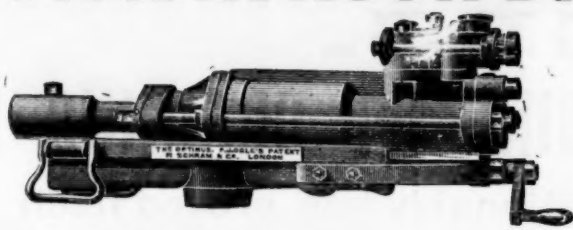
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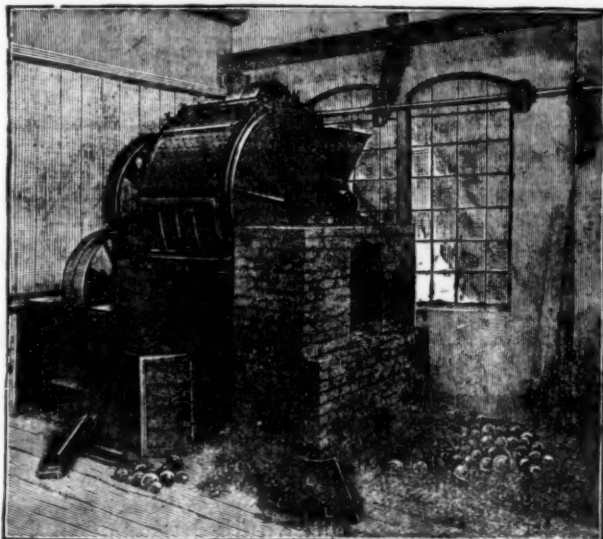
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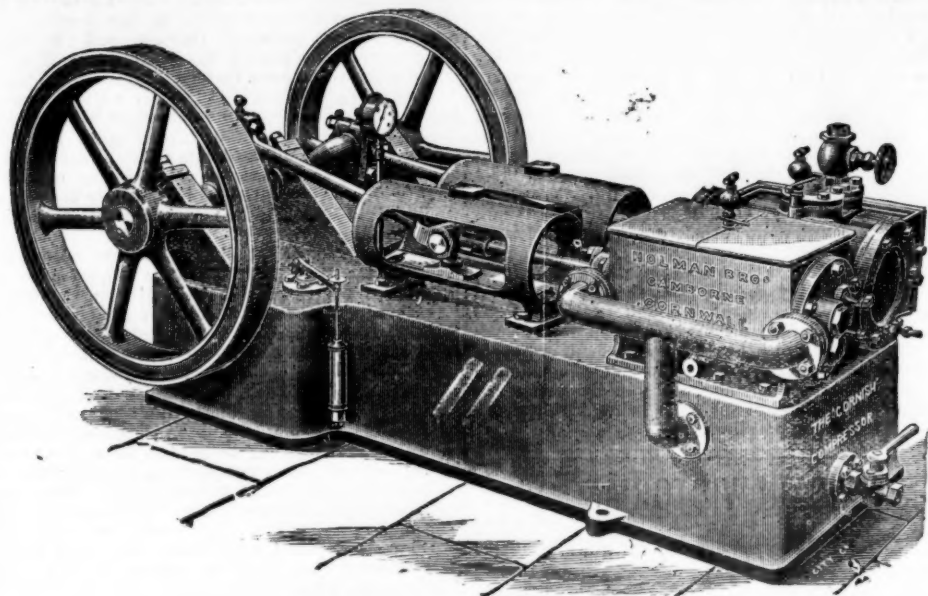
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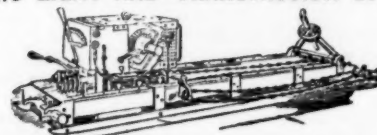
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NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

- 9739 Leon Syntus D'Isoro, 1, Mecklenburg Square, London.—Improvements in rotary pumps and engines.
- 10729 Thomas Henry Tregoning, 4, South Street, Finsbury, London.—Improvements in machines for vanning or concentrating tin and other ores.
- 10768 Frans Forst, 18, Fulham Place, Paddington, London.—An improved mixing and feeding apparatus for coal dust furnaces.
- 10837 Edwin Crawford Merdock, Roswarm Cottage, Camborne.—An improved hollow cylindrical valve for rock drill.
- 10911 Thomas Frederick Edwards, 45, Southampton Building, Chancery Lane, London.—Improvements in valves.
- 11057 Ernest John Clabbe, Alfred William Southey, and the Electric Motive Power Company (Limited), 55, Chancery Lane, London.—Improvements in rotary oil or explosion engines.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

- Gold Fields of British Columbia (Limited).—Registered May 9 by E. Andrews and White, 27, Clement's Lane, E.C., with a capital of £100,000, in £1 shares. Object: To carry on the general business of a mining and smelting company in British Columbia or elsewhere. Registered without Articles of Association.
- Bedrock Syndicate (Limited).—Registered May 9 by Mays and Co., 14, Drapers' Gardens, E.C., with a capital of £20,000 in £1 shares. Object: To carry on the general business of exploring, prospecting, mining, trading, smelting, &c. The directors are to be nominated by the subscribers. Qualification, 100 shares. Remuneration, £150 each per annum and a percentage of the profits divided between them; Chairman, an additional £50.
- Anglo-Penninsula Mining and Chemical Company (Limited).—Registered May 9 by Marshall and Hallip, 6, Martin's Lane, Cannon Street, E.C., with a capital of £100,000, divided into 100,000 shares of £1 each. Object: Primarily to adopt and carry into effect an agreement expressed to be made between the Exporters' Agency (Limited) of the one part and this company of the other part for the acquisition of certain lands and rights in Portugal or elsewhere, to prospect and examine the same for arsenic, &c.; and, further, to acquire and turn to account any freehold lands, farms, estates, mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, alluvial ground, metalliferous land, &c.; to develop and turn to account the same in such manner as the company

shall see fit; and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches; to construct, maintain, and work rail and tram roads; to employ and dispatch prospecting and exploring expeditions; to develop and turn to account such lands, &c., as may from time to time be acquired by the company by clearing, draining, farming, planting, building thereon, &c.; to carry on business as bankers, capitalists, financiers, company promoters, metal workers, builders and contractors, engineers, farmers and graziers, horse and cattle dealers, coach proprietors, traders, shipowners, storekeepers, importers and exporters, &c., and all or any of their respective branches.

Great Boulder No. 1 (Limited).—Registered May 22 by Golding and Phillips, 20, Abchurch Lane, E.C. Capital £225,000, in shares of £1 each. Object: To adopt and carry into effect an agreement expressed to be made between the Great Boulder Proprietary Gold Mines (Limited) of the first part, and this company of the other part, for the acquisition of a certain mining lease (No. 59 east) known as the Great Boulder Extended, the same being situated at Hannan's, East Coolgardie, W.A.; to deal with the same in such manner as the company shall see fit; and further to acquire any other mines, concessions, rights, options of purchase, alluvial ground, metalliferous land, mineral deposits, &c., in any part of the world; to develop, turn to account, and deal with the same in such manner as the company shall deem expedient, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches; as stock raisers, farmers, planters, builders and contractors, shipowners, storekeepers, &c.

Mystery Gold Mining Company (Limited).—Registered May 21 by Morton, Cutler and Co., 99, Newgate Street, E.C., with a capital of £25,000, divided into 25,000 shares of £1 each. Object: To acquire by purchase, lease, or otherwise, gold mining, timber, and mineral properties in West Australia, and to develop, work, and turn to account the same; and further to acquire any mines, mining, water and other rights, grants, leases, concessions, options of purchase, metalliferous land, &c., and to carry on in all or any of their respective branches the businesses of miners, millers, smelters, and metallurgists; to erect and maintain mills and other machinery; to construct and maintain rail and tram roads, piers, wharves, docks, warehouses, &c.; to employ and dispatch prospecting and exploring expeditions; to develop the resources of such land, estates, &c., as may from time to time be acquired by the company, by clearing, draining, farming, planting, and building thereon; as builders and contractors, stock raisers, shipowners, storekeepers, &c. The first directors—of whom there shall be not less than three nor more than seven—are S. Lee, H. B. McNab, and Colonel G. Swinton. Qualification, £50. Remuneration, £400 per annum, divisible.

Beeston Engineering Company (Limited).—Registered May 21 by Waterloo Brothers and Layton (Limited), Birch Lane, with a capital of £2000 in £1 shares. Object: To enter into an agreement with T. Bennett for the acquisition of the business of a cycle manufacturer, now carried on by him at Beeston, Nottinghamshire, and to develop and extend the same. The directors are to be elected by the signatories. Remuneration to be fixed by the company.

Great Work Tin Mining and Development Syndicate (Limited).—Registered May 21 by B. Davies, 46, Chancery Lane, W.C., with a capital of £15,000 in £1 shares. Object: To enter into an agreement with C. F. Buttle, for the acquisition of certain mines, mining rights, &c., in Cornwall, and to develop, work, and turn to account the same in such manner as the company shall see fit. Table A mainly applies. Registered office: 41, Temple Chambers, E.C.

Great Boulder No. 2 (Limited).—Registered May 22. Capital £100 in £1 shares. Object: To acquire any mines, mining rights, &c., in West Australia, or elsewhere, and to develop, work and turn to account same in such manner as the company shall see fit.

Great Maori Dream Mine (Limited).—Registered May 22 by Cannon and Son, 20, Wool Exchange, E.C. Capital £110,000, in 55,000 shares. Object: To adopt and carry into effect an agreement expressed to be made between the British Possessions Corporation (Limited) of the first part, and this company of the other part, for the acquisition of certain mines, mineral lands, &c., in

the Hauraki Mining District, New Zealand; to develop, work, and generally turn to account the same in such manner as the company shall see fit, and further to acquire any other mines, grants, concessions, leases, rights, options of purchase, metalliferous land, alluvial ground, mineral deposits, &c., in any part of the world; to develop and deal with the same in such manner as the company shall deem expedient, and to carry on the business of a mining and smelting company in all its branches. To construct and maintain tram and rail roads, piers, docks, warehouses, wharves, &c.; to develop the resources of the lands of the company by clearing, draining, irrigating, planting, farming and building thereon. As stock raisers, contractors, shipowners, storekeepers, &c.

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*We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal and Coke, June 10 (London).—For the supply of coal and coke at the police offices, stations, and section houses, and for steam launches in connection with the Metropolitan Police District for a period of one year. Forms may be obtained from the Receiver, at his office, New Scotland Yard, S.W.

Tug Boat, June 12 (Belfast).—For the construction and supply of a twin screw tug-boat, for the Belfast Harbour Commissioners. Copies of specification form of tender, and any further information required may be obtained at the Harbour Office. Sealed tenders, on the special forms provided for the purpose to be addressed to Mr. W. A. Currie, secretary, Harbour Office, Belfast, endorsed "Tender for Tug Boat," and sent in by June 12.

Locomotives, June 15 (Sofia).—For the supply of nine locomotives. Applications to the Ministry of Public Works and Communications, Sofia, Bulgaria.

Coal and Coke, June 10 (London, S.W.).—The Receiver for the Metropolitan Police District is prepared to receive tenders for the supply of coal and coke at the police offices, stations, and section houses, and for steam launches, for one year, commencing July 1.

Coal, June 10 (London, S.W.).—For supply of steam, gas, and house coal, from July 1, 1896, to June 30, 1897 (both days inclusive), to the asylums at (1) Banstead, near Sutton, Surrey; (2) Cane Hill, Coulsdon, Surrey; (3) Claybury, Woodford, Essex; (4) Colney Hatch, New Southgate, E.; (5) Hanwell, W., for the Asylums Committee of the London County Council.

Bridgework, June 10 (London, S.W.).—For supply and delivery of plate girder steel bridges, for the East Indian Railway Company, as per specification and drawings at company's offices, Nicholas Lane, E.C. Fee £1 is.

Tires, June 9-16 (London, S.W.).—The Secretary for India invites tenders for steel tires, break-down cranes, and locomotives. Conditions of the Director-General of Stores, India Office, Whitehall, S.W.

WIRE MINING ROPES.

THEIR TECHNOLOGY, MANUFACTURE, AND USES.

By J. BUCKNALL-SMITH, C.E.

Author of "Wire: Its Manufacture and Uses;" "Underground Rope Haulage;" "Cable Traction for Rail and Tramways," &c.

No. I.

PROBABLY no word of four letters in the English language embodies more general technical importance than the, to many, insignificant monosyllable—wire. Mining men necessarily have some acquaintance with a form of the product, however elementary, but its countless services daily rendered each and everyone of us in practically every department of life are rarely recognised. By its aid the numerous mineral treasures of the earth are raised to the surface from the deepest of mines; indeed, in Great Britain alone over 150,000,000 tons of coal are annually raised by the agency of wire ropes. We may casually mention its utility in connection with our enormous shipping interests, the tilling of land, the transmission of telegraphic messages over the earth's surface, or through the silent ocean depths; the great generating and distributing medium of electricity itself may be summed up in the word wire; but these and innumerable like examples of the multifarious uses of this slender product do not concern us in the present dissertation. Wires composed of all the metals, as well as numerous alloys, are daily manufactured, from $\frac{1}{4}$ to 1-1000th of an inch in diameter, and in some cases in such delicate forms that some 2000 yards weigh less than 1 ounce, but in the present series our attention will be confined to iron and steel wire and its manufactured products as applied to mining, haulage, and winding purposes. Iron, however, now plays only a comparatively small part in the production of running ropes, the alloy of steel having mainly superseded this metal. Indeed, beyond the employment of some Swedish iron wire ropes for passenger lifts or elevators, different grades of steel wire are now almost exclusively used for winding and hauling services, although in some exceptional cases iron may be beneficially utilised, for the reasons hereinafter explained. The term, steel ropes, is often ambiguously employed in the trade, supplemented by such indefinite distinctions to the outside world as "patent," "improved," and "plough" steel wire ropes. Bessemer steel is usually unsuitable for the manufacture of mining ropes, crucible steel being the best material of construction in the majority of cases, although to really procure it at a reasonable price must be paid. It is astonishing, with regard to the importance of the issue, how many mining engineers and officials still prefer to accept, if not seek, exceptionally cheap ropes, when they should be aware that the wire alone, if of good quality, must cost more than the price they give for the finished rope. Disregarding questions of safety, such practices are mistaken ideas of judicious economy in 90 per cent. of the cases. At the present time, in the metal trades generally, the difference between the prices of iron and steel is comparatively small, but in the wire trade the variation in cost is often very considerable, because iron is more easily "drawn" than high grades of steel; further, the latter is usually subjected to skilful and costly processes of annealing and tempering, which raise or develop the latent properties of the wire to a very remarkable extent. In the trade this occult treatment is commonly termed "patenting or improving," the importance and value of which may be in some measure understood, when it is appreciated that steel wire is daily manufactured with an ultimate tensile resistance equal to some three times the strength of any other form of manufactured steel.

Whereas the range of tensile resistance in iron wire may be roughly taken as between 35 and 40 tons per square inch of sectional area, different grades of steel wire may have a strength commencing from the latter upwards to about 175 tons per square inch. The so-called "mild steels" present an efficiency between (say) 40 and 60 tons per square inch; the "patent or improved" steels between 65 and 90 tons, and the "plough" steels from 100 tons resistance per square inch of area upwards. The term "plough" was derived from the occurrence that steel wire of high breaking strength was first employed in the manufacture of ropes for steam ploughing purposes. The greater the ultimate tensile resistance of steel wire, the larger the proportion of carbon present with the iron—e.g., the percentages of carbon to be found in the classes of steel above referred to may range (say) between .12 and .85, appreciable traces of sulphur and phosphorus being more or less detrimental in the production of high class wire.

So far only the salient principles of tenacity in steel wire have been touched upon, but it will be readily apparent that proper degrees of torsional, bending, and elastic efficiency are equally important in most cases; further, that the first cited property is raised or developed at some sacrifice of the latter qualities—i.e., the greater the tensile resistance the lower the torsional, elastic, and elongational efficiency of the wire, and vice versa. Hence, in mining operations and applications of ropes, the precise requirements and conditions of work should be carefully studied and determined in each case. Assuming average favourable circumstances, fair-sized and decently-mounted pulleys and drums, hauling ropes composed of cast steel wires of about 80 ton quality, will usually be found to give good results in practice.

Of course, the gauge and number of the wires, the construction of the strands and rope, also play important parts, and these considerations will be described later on. Winding ropes made of a similar quality of steel often satisfactorily meet requirements, but when the loads to be raised are heavy, and the shafts exceptionally deep, it is frequently advisable to employ steel of higher grades of tenacity—e.g. (say), of from 100 ton quality. The higher the tensile efficiency of the component wires of any rope, the larger should be the diameters of the overhead pulleys and winding drums, &c., the proper proportions of same, under varying conditions, forming a subject of comment later on in this series. Wire ropes required to work in wet or damp pits, galleries, or places may sometimes to advantage be formed of galvanised wires, although this process of preservation causes some small depreciation in the qualities of the material. The flexibility of wire ropes obviously depends upon the nature and form of the cores or hearts of same, and the number of wires used in the strands of the complete structure.

It has been before suggested that in some exceptional instances ropes composed of superior iron wire may give good results when those composed of steel undergo rapid destruction from corrosion and chemical change. This is a fact which has been singularly neglected; indeed, the engineer must not usually look to wire rope manufacturers for scientific or technical guidance, or he may be misled. A professional man should be in a position to definitely specify the materials of construction, gauge of wire, form of strand "lay," &c., required for his purpose. It should be remembered that steels corrode more rapidly than iron when immersed in salt water or under the influence of saline moisture. Oxidation is due

alike to presence of carbonic acid and water, and this action is accelerated by heat and galvanic agency. Acid vapours or acids in solution attack both iron and steel, and, if anything, the latter with greater activity; indeed, under such influences galvanisation with zinc is of no practical service. Bright wire corrodes more rapidly than varnished or dull wire. Zinc affords little, if any, protection in the presence of fresh sea or salt water, and the degrees of corrosion in such cases are constant and progressive. The complex structure or carbides present in the alloys of steel are considered by chemists to be a cause of galvanic disintegration when surrounded by moisture or an atmosphere impregnated with saline salts. These conclusions are not based on theories, but exhaustive experiments. Professor Andrews, F.R.S., considers that in some circumstances "the advantages in favour of iron are fully 20 per cent."—this seems an extreme example. Baneful results sometimes follow the employment of a combination of metals or alloys. Hence iron wire cores in steel ropes may accelerate corrosion under the influence of saline moisture. This will not be astonishing information when one remembers that the combination forms a galvanic pair. Free solutions of caustic alkali prevent or deter rusting, i.e., oxidation of wire ropes. Imperfectly diffused manganese in steels, it is considered, promotes corrosion under the chemical influences defined.

The writer has experienced instances in which iron ropes have given more satisfactory results than those composed of steel, although this must be qualified as an exceptional experience, due to the peculiar conditions or surroundings above-mentioned. From that which has been stated, it obviously follows that all lubricating or protective oils and grease used in connection with wire ropes should be absolutely neutral, or slightly alkaline, the presence of any acids being highly detrimental to their preservation and lives.

MINING IN VICTORIA.

(FROM OUR OWN CORRESPONDENT.)

SO far as the year 1896 has progressed, the mining industry of Victoria has enjoyed a season of unusual prosperity, which has been mainly attributable to the opening out of new country, and the large number of small co-operative parties working reefs to shallow depths, combined with the efforts of untrained and inexperienced men re-working the alluvial of the older gold fields. The success that attended mining explorations during last year has added largely to the stability of mining, and the amount of money continually seeking investment in small companies located around Walhalla, Jericho, Donnelly's Creek, and other places in the vicinity, is daily increasing. Taking the last decade as a guide, success was never so general as now. At the same time, of course, the greater extent of the exploitations being carried on, the larger the amount of capital which must remain temporarily unproductive whilst the period of fruition is being reached.

The only quarterly return in since my last, is for the Beechworth division of that district, amounting to 4449 ounces 15 dwts., nearly all of which was obtained from alluvial workings.

The estimated yield of gold for the quarters from the Stawell mines has been 3600 ounces. The dividends paid by the Magdala-cum-Moonlight Company during the period amounted to £1752.

Mr. L. A. Samuels, who has recently returned to Bendigo from Europe, and is now managing a number of English-owned ventures on that field, has purchased Mr. Parker's specimens from the Parke's or Crusoe reef at a depth of 15 feet. The Bendigo correspondent of the *Argus* states the weight of stone and gold enclosed therein to be 103 ounces, and by careful test the gold has been estimated at 65 ounces. Mr. Samuels paid £253 10s. for them. Subsequently the same gentleman tried to buy some rich stone taken from the north level at a depth of 2782 feet in the Shenandoah, but the directors declined to sell any of the specimens. Mr. Samuels' idea is to exhibit in London specimens from various parts of and depths on the Bendigo field, with the view of attracting capital to the neglected auriferous areas of this district. Though I hardly think "neglected" is the word meant, for on referring to Mr. R. A. F. Murray's (Government geologist) report of August 26, 1895, in reference to "auriferous reefs which have been worked in the past successfully, and may in the future, if further explored, become profitable sources of gold supply," he says:—"Nearly all the reefs of any note around Bendigo appear to be occupied and in work. The particulars concerning abandoned ones are too scanty for the present use." To this I may add, Diamond Hill is worth looking after.

Quite a crop of mines are named for the London market, amongst which may be mentioned the United Albions Company, at Ballarat. A motion was carried at the last general meeting of shareholders to appoint a representative of the company to proceed to England to steer the venture through. I hear the Chairman, Mr. T. D. Warlis, M.L.C., has been selected. During the discussion a Mr. M. N. Cooper, a prominent shareholder, expressed dissatisfaction with the manner in which operations had been carried on by the board. He thought that if the number of shares were increased, and operations carried on with more vigour, there would be no necessity to appeal to English capitalists, and moved an amendment to that effect. The amendment, however, was not seconded, and so the mine goes to London. The Charlotte Plains Pioneer Company near Maldon is another. The O'Connor's Company and the Egyptian Company, in the Taradale district, are also starters. The old Church Hill and White Horse Reefs at Amherst are promised English capital. The South German Mine, Maldon, is another of the batch under offer for £120,000. The prices have transpired for what most of the mines have been put under offer at here, and the transformation they are to make when they see the light of day in London. I had better give this information in a private postscript. It should concern us very little what these gentlemen are going to put into their pockets; but the colony is very much concerned as to the amounts to be put to the credit of the mines as working capital. The Queen's Birthday, the North Birthday, King's Birthday, and Belgium and Perseverance (all at Danolly) floated in London some time ago under the title of The Queen's Birthday United Gold Mines (Limited), is a worthy example of how good mines are treated by English companies. I state here as a fact within my personal knowledge that the water was never taken out of these mines. Yet the Queen's Birthday alone but a few years ago averaged 1000 ounces of gold per fortnight. Beyond pumping in fits and starts, when a few miserable pounds would come out to the manager, the company did nothing. In the liquidators' report I notice an item of £11,673 5s. 6d. expenditure on salaries and wages paid at mines and general outlay on development of properties. Over and over again when the manager had just got the water out of the shaft, funds stopped coming, work ceased, and the labour and expense of months thrown away; there being no alternative, through lack of funds to keep the pumps going. To say that mining operations were ever carried on to any extent by the

late company is an absurdity. No fault can be found with either the mines or the manager. The gold is there still, and the manager made every honest attempt to get it out. Despite the fact that the Queen's Birthday has gone into liquidation, these properties will still be heard of, and the sum of £40,000, which the defunct company set down as the value of their asset, is the only statement in their balance-sheet which is likely to be accepted as truth on this side. The right horse should be saddled with the fault. Dunolly has been one of the richest fields in Victoria, and is still worthy of development in the deep ground. The Dunolly district is famous for nuggets, shedded from the rich reefs in the locality. The whole country lying between Dunolly and Wedderburn was more noteworthy among the early mines than many fields which still revel in early history. Ingleswood, Kingower, Berlin, Moliagul, Wedderburn, and Dunolly are still names to conjure by. Last week the matter was brought before the law courts of Victoria, on a petition by the English liquidator, for the purpose of preserving the assets of the company. Counsel who appeared for the petitioner asked for an adjournment until July, which was granted, as it was likely that an arrangement would be made with the company's creditors, and a reconstruction arrived at.

A case of a somewhat different nature occupied the attention of the Warden's Court at Gippaland. A company known as the Clarkeville Gold Mining Company has been "shepherding" a valuable lease of ground near Bendoc. No work had been done on the ground, except by seven tributaries from December 19 to February. Some parties who were willing to work it had resided on the boundary of the lease for five months, watching their opportunity to get evidence for forfeiture of lease. The Clarkeville Company deposed at the hearing that the mine had been placed on the London market for £75,000; £13,000 to be paid to the vendors and £10,000 to be expended at once in prospecting. An offer had been received from London favourable to the scheme. The company valued the machinery and improvements on the ground at £331 17s. 6d. The applicants for forfeiture valued the work done and improvements at £200, which sum they were prepared to pay. The Warden has sent his finding of the Court to the Minister of Mines for ratification to the following:—"That from the issue of the lease up to the date of inquiry the mine has not been worked in accordance with the provisions of the Act, but seeing that the last suspension only expired on March 4, and the applications for an inquiry were dated on the 4th and 7th of that month, he considered them to be rather premature. Should the Minister of Mines not coincide with this view of the matter, and declare the leases forfeited and given to the applicants who are prepared to comply with the provisions of the lease, the work done on the property is worth about £300." So says the Warden, and this is the best expert's report that can be published with the prospectus of this mine when it comes out in London. Some very rich finds have occurred in the vicinity of Bendoc, and on these leases Messrs. Barrett and Christensen, who were the applicants for forfeiture, are in the position of the American expert who was sent to see a famous mine, and who simply reported:—"I have seen your mine—let me into the deal." The applicants in the Clarkeville Mine need only say:—"Gentlemen—We have waited five long weary months by the side of this mine, waiting an opportunity for the deal. We now bring it to you." That is quite sufficient. I will vouch for the richness of the reefs on this property, but I have forgotten to say the Minister has not given his decision to date. The Chairman (Mr. A. G. Traill) of the Gippaland Mining Board is rather a thorn in the side of the department just now. Mr. Traill has got his eyes on all "shepherds" and "waiting brigades" in the Gippaland district, and will want to know the reason why! from the Minister, if the lease is not declared forfeited. I have written to Mr. Traill saying Bravo! If he will only send along a few more of such cases we may at least see this rich country opened up during the present generation.

A rich find is reported from Alexandra, in the Beechworth mining district. A ton of quartz was taken out and crushed, and it yielded 27½ ounces of gold. The quartz was not picked, and is said to represent a day's work. The *Argus* correspondent says they have only sunk 3 feet, and the width of the lode is about 11 inches, but widening as it goes down. Great excitement has been occasioned by a rush which has set in to the place. This following on a recent find of 10 ounces to the ton but a short distance away, will, doubtless, cause vigorous work to be undertaken.

MANGANESE ORE.—Manganese ore is found in Sweden under the form of pyrolusite, hausmannite, and braunite, and also as ferro-manganiferous ore. The greater portion of pyrolusite is extracted from the neighbourhood of Bolet and also in Western Gotland, at various points in Smaland, in Dalecarlia, and also in Dalaland. In the first of these provinces the mineral is met with in fissures in the gneiss or granitic gneiss, or in contact with the latter and a red-coloured gneiss. The fissures generally vary from 6½ feet to 10 feet in width, and they are filled with a composite substance in which chlorite, mica, barytes, carbonate of lime, pyrolusite, and manganese form the cementing matters. The fissures, of which there are three principal, are about 765 yards long. The ore is first separated into hard and soft, the best soft ore containing between 58 and 61 per cent. of manganese, and the best hard ore a little less. The mean manganese content of the soft ore may be put at 53.17 per cent., and that of the hard ore at 48.98 per cent. The output of 1894 was 1636 tons.

NAPHTHA INDUSTRY IN THE CAUCASUS.—The naphtha industry at the small town of Grosny, in the Terak district, is rapidly developing, and one large firm springs up after another. The necessary pipe for the conveyance of the naphtha to the nearest railway station, which is a distance of 84 miles, is being constructed, and the demand for Grosny naphtha increases every day. Of the four leading firms the largest is working six bore holes, but this number will ere long be increased; the second firm is working a couple of bore holes, and several other large and substantial firms are gradually getting into full swing. Further, the large firm of Nobel and Co. has bought several plots of land in the neighbourhood of Grosny, in order to employ them in the naphtha industry, the installations being already in course of completion. The Wladikowkas Railway Company has also decided to exploit the naphtha industry at Grosny, and a syndicate of Tiflis and Baku capitalists, which some years ago bought several plots of land in the same district, is now about to commence operations. As an example of the astonishing yield of the Grosny borings, one is mentioned which yielded 13,000 tons of naphtha in 24 hours, a figure which has barely been reached even at Baku.

"SHOCKING" CAST IRON.—Mr. A. E. Osterbridge, jun., in the course of a paper read at the recent Pittsburgh meeting of the American Institute of Mining Engineers, remarked:—"There has been a general impression that repeated shocks render cast iron brittle, but experiment establishes the opposite. A thousand tests of bars of cast iron of all grades show that iron is materially strengthened by repeated shocks or blows. Annealing castings—say, for instance, car wheels—increases their strength by relieving cooling strains; but the molecules of cast iron are also capable of movement without heating, and they can thus re-arrange themselves and relieve the overstraining near the surface of the casting. A molecular annealing may be accomplished at ordinary temperatures, relieving the strains in the castings, precisely as does annealing by slow cooling in hot pits or vases."

MEETINGS OF MINING COMPANIES.

EXPLORATION COMPANY, LIMITED.

An extraordinary general meeting of the shareholders in the Exploration Company (Limited) was held at the Cannon-street Hotel, on Monday, Sir HORACE FARQUHAR, M.P., presiding.

The SECRETARY (Mr. Ernest C. Palbrook) read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen—The notice convening this meeting has been read to you, and you have all received the circular stating why I have the pleasure of addressing you to-day. The object is to lay before you the scheme the board have to ask you to confirm, which is an amalgamation of the three companies—the Exploration Company, the Transvaal and General Association, and the West Australian and General Association. If you will allow me, I will touch upon the different points connected with this proposed amalgamation, and after I have done so I shall ask Mr. Rawlins, our solicitor, to give you the legal points connected with it. I think that the circular which has been forwarded to all of you gives a lucid idea of our reasons for recommending this amalgamation, and I shall, therefore, confine my remarks to the principal reason why we were so strongly of opinion that it should be recommended. The principal reason is that with the very largely increasing business, I may say in many parts of the world—because it is not only to South Africa, but also to America, to West Australia, and to New Zealand that our business is now extended very largely—we find it most difficult to divide the interests of this largely increasing business amongst three companies. We, therefore, felt that with one large company and consolidated capital, we should be better able to conduct the organisation of so important a business than we should acting as directors and managers for three separate companies. (Applause.) Now, gentlemen, I feel that this reason must appeal to you, and I have no hesitation in recommending the scheme, and feeling sure that you will adopt it. My next duty is to tell you that we have for some months now been most carefully considering the way in which this amalgamation should be carried through. It has been necessary for us to consider the assets of each of the companies, and these have been most carefully gone into. In doing so, it has taken a considerable amount of time, as I have already said. We have had the advice—not the professional advice, because it does not come exactly under the professional duties of an auditor—but we have had the advice of our auditors, Messrs. Deloitte, Dever, Griffiths, and Co., and Mr. Griffiths, who is present, will, I am sure, if you wish it, tell you that he went through the facts and the figures that brought us to the conclusion we have come to, and that he gives it his cordial support, not only as a man of great business experience, but also as one of our shareholders. (Applause.) In submitting balance-sheets it has never been our practice to give details of our assets, and for the best of good reasons, that it has never been considered advisable that the nature of the many businesses in which we are engaged should be divulged. We think it much better you should know what the result of the business is than that we should go into detail as to the nature of it; and I am happy to say that at no moment have I ever been in a position to state more emphatically that the result of the business has been most satisfactory. (Applause.) Under those circumstances, gentlemen, you will understand that when we took the valuation of the assets, and weighed most carefully the separate claims of the three different concerns, we did so with a full knowledge of the value of these assets and the business that we were engaged in. You will, therefore, understand how very carefully we went into this amalgamation before we submitted it to you, and as we do to-day. I have told you that all this has been carefully done, that we have submitted it to the auditors, and that Mr. Griffiths has approved of it. I may also have the pleasure of saying that the business which is before us at this moment is of a most satisfactory nature. We also look forward with very great hope to the visit of Mr. Hamilton Smith to America. From all that we hear he is working there very successfully in our interests, and we trust that the result of his visit will be most profitable. We have also a very fine business, as I think you all know, in West Australia and New Zealand. At this moment great attention is being drawn to West Australian matters, and I am happy to be able to inform you, with regard to the business we are doing in West Australia and New Zealand, that it is as satisfactory as it possibly could be, and I trust we shall derive large profits from it. Since the commencement of the year, I am happy to tell you, we have been able to realise very large profits on transactions which have matured. So that, taking what I have said to you, and reviewing that statement, you will find that I have a most gratifying report to make to you of the business we are now engaged in. (Applause.) With regard to one point in the circular—that is, the 50,000 shares proposed to be allotted at par to the managing directors and the directors of the company in the proportions stated—I wish to mention that the reason we adopted that course instead of paying a sum of money to the directors as their percentage on the very large undivided profits made by the company, the reason we adopted that course was principally because we wished to identify ourselves more and more with the interests of the shareholders, and also with the future of the company. In doing so, and in fixing the sum of 50,000 shares as we have done, we also consulted our auditors. We submitted to them, as far as it was possible to do so, the very large profits which have accrued, and what we were entitled to as against these very large profits, and I am happy to be able to tell you that they entirely approved the course that we were taking, which they considered to be equitable in every way. Naturally, gentlemen, some of you may think that the sum as proposed is a large one; but, on the other hand, you have the great satisfaction of feeling that if the sum is large the profits coming to you must be proportionately great. The next point I have to allude to is the management of the new limited company, and as we considered it was desirable to increase the strength of our board, we have been able to secure the services of two most excellent gentlemen to join us as colleagues. The first one that I mention is the Hon. Herbert Gibbs, who is well known as being a partner in the house of Messrs. Anthony Gibbs and Sons. That firm have been for some time actively engaged with us in West Australian business, and, as we have profited much in co-operation with them, we have no hesitation in saying that we think the board acquires strength by the accession of Mr. Herbert Gibbs to it. We have also secured the services of Mr. Gerald Dudley Smith, a partner in the well-known banking firm of Messrs. Smith, Payne, and Smiths, who act as our bankers. I have personally known not only all his partners, but also a generation before him, and I feel certain that his coming on the board will be agreeable to you all. (Applause.) There is another point, perhaps, which I should allude to at this moment in connection with the board of management. It is this, that we have decided that each director must take an interest to the extent of 2½ per cent. in every business which is proposed to the company. It is somewhat new here, but is very prevalent abroad. It is very much adopted in France, and I think if it were more generally adopted in England it would be to the benefit of the shareholders of most financial companies—indeed, most companies, because as you will well understand, it increases, if possible, the care, we will say, of the board in undertaking business. I think I have touched upon nearly every point that I wished to allude to in connection with the amalgamation of our business. In conclusion, I can only do what is most pleasing to every Chairman, and which I have had to do, I am happy to say, on several occasions when I have had the great satisfaction of addressing the shareholders of this company—namely, to congratulate you most heartily upon the result of the business we have had the pleasure of undertaking, results which have been so very satisfactory. When we are all joined in one, a great amalgamated company, these results will, I am sure, be greatly enhanced. Never have I, perhaps, taken the chair at a moment when we were so prosperous, and let

me hope that I may be able to congratulate you again at no distant date on the successful working of a great amalgamated company. (Applause.) I have now to move:—(1) "That it is desirable to amalgamate the undertakings of this company with the undertakings of Transvaal and General Association (Limited), and West Australian and General Association (Limited), and that with a view thereto, this company be wound up voluntarily, and that Francis Alfred Lucas, James Rochfort Maguire, and Joseph Harry Lukach be and they are hereby appointed liquidators for the purposes of such winding up." (2) "That the said liquidators be and they are hereby authorised to consent to the registration of a new company to be named The Exploration Company (Limited) with a Memorandum and Articles of Association which have already been prepared with the privacy and approval of the directors of this company." (3) "That the draft agreement submitted to this meeting, and expressed to be made between this company and its liquidators of the first part, Transvaal and General Association (Limited) and its liquidators of the second part, West Australian and General Association (Limited), and its liquidators of the third part, and the Exploration Company, Limited (incorporated in 1896), of the fourth part, be and the same is hereby approved, and that the said liquidators of this company be and they are hereby authorised, pursuant to Section 131 of the Companies Act, 1862, to enter into an agreement with such new company (when incorporated) in the terms of the said draft, and to carry the same into effect with such (if any) modifications as they think expedient."

Mr. FRANCIS A. LUCAS said: Sir Horace Farquhar has gone into the facts so very closely that I do not think any words are necessary from me to supplement his very full statement. All I have to do is to second the resolutions put from the chair. I trust they will be carried unanimously, and of that I have very little doubt. I have no doubt, if any shareholder has any questions to ask, our Chairman will be happy to answer them, but I think from the full statement made by Sir Horace there is very little which requires further amplification.

Mr. RAWLINS, the solicitor, next explained the provisions of the agreement.

Mr. J. H. SMITH said: I think, after the clear and lucid statement the Chairman has given to the shareholders, it must be self-evident that the resolutions which have been proposed are in our interest, and I am sure they will meet with our unanimous approval. I have spent some years in Australia, and have only lately returned, and I can assure my brother shareholders that the operations of a strong, powerful company, which this will be when the amalgamation is completed, will be practically unlimited. West Australia is just now in its very infancy, in an auriferous country extending over 1000 square miles. I can assure gentlemen here, if this corporation will extend its operations there, your profits will be immense. I rose only to say that this resolution has my cordial approval, and I am sure every shareholder in this company will be doing the very best for himself, if he cordially supports it.

The resolutions were then put and carried unanimously.

Mr. HALL: I have much pleasure in moving a vote of thanks to the Chairman. This company has been a great success, and with the amalgamation it will be much greater.

Mr. JOSEPH PARSONS, who seconded the motion, said: As to the amalgamation of the three companies, there can be but one opinion—namely, that it is most desirable as to the division of the assets and the apportioning of the new shares. We on this side of the table are quite unable to estimate what they should be. We are in the hands of the directors, but we feel we are in the hands of men of the strictest honour and integrity. (Hear, hear.) I, for one, am quite satisfied to leave the matter in their hands, believing that they will deal rightly and fairly all round.

The motion was agreed to.

The CHAIRMAN, in reply, said: I am sure we are extremely obliged for the unanimous vote in support of the board, and also for the very kind way in which it has been spoken to. I assure you our services will be continued, and we will do our utmost to make the amalgamated company as prosperous and as successful as possible. I can only repeat that I trust the new company will be as prosperous as the three old ones have been.

Mr. RAWLINS announced that the confirmatory meeting would be held on June 16, and the meeting then terminated.

TRANSVAAL AND GENERAL ASSOCIATION, LIMITED.

An extraordinary general meeting of the shareholders in the Transvaal and General Association (Limited) was held at the Cannon-street Hotel, on Monday, under the presidency of Sir HORACE FARQUHAR, M.P.

The CHAIRMAN said: Gentlemen—We have just held a meeting of the Exploration Company, and I think that most of you were present at that meeting, for I see very few fresh faces. However, I will make a few remarks with reference to the proposed amalgamation, though I may be somewhat more brief than at the first meeting. The principal reason, as I have already stated, for the amalgamation of the three companies—the Exploration Company, the Transvaal and General Association, and the West Australian and General Association—is to overcome the great difficulty that we have experienced in reference to the many proposals for business which we have accepted in dividing them among the three companies. We found that, with a very largely increasing business, it became every day more difficult to do this, and under these circumstances, and considering also the great advantage that we believe will accrue from our having one large consolidated capital, we made up our minds that we would propose to you that these three companies should be amalgamated into one large consolidated company. The Chairman then made a similar statement to that made to the Exploration Company, and concluded by a series of resolutions to the same effect as those passed at the meeting of that company.

Mr. F. A. LUCAS seconded the resolutions.

Mr. BENJAMIN supported the resolutions. He remarked that a shareholder at the Exploration meeting stated what he knew about Australia. He (the speaker) knew nothing about Australia, but he did know something about South Africa, and he must say that what the Transvaal and General had done was to him astonishing. He had a letter in his hand, received that morning, which, as showing the profits that were being made, stated that even in landed estate the company had bought only a year ago some properties for £8000, which they had sold for £23,000. He merely gave that as one instance of probably very many of the great profits the company had made.

The resolutions were carried *nem. con.*

WEST AUSTRALIAN AND GENERAL ASSOCIATION, LIMITED.

An extraordinary general meeting of the shareholders in the West Australian and General Association (Limited) was subsequently held, Sir H. FARQUHAR again presiding.

The CHAIRMAN moved a series of resolutions similar to those carried at the meetings of the Exploration Company and the Transvaal and General Association. He remarked that having explained the reasons for entering into the proposed amalgamation at these meetings, and the shareholders being practically the same at each, there was no need for him to repeat the remarks he had made upon the scheme.

Mr. LUCAS seconded the resolutions.

A SHAREHOLDER enquired whether the payment for the 150,000 shares to be offered to shareholders in the new company might be made by instalments. He thought that mode would be convenient to many of the shareholders.

Mr. RAWLINS (solicitor to the company) explained that it had already been provided in all the documents that the shares should be paid up on allotment, and it was now too late to alter that arrangement.

Another SHAREHOLDER asked what would be the proportion in which the Sulphide shares would be divided.

The CHAIRMAN replied that as there were 100,000 shares to be distributed amongst the holders of 200,000 shares, the proportion would be one Sulphide share for every two—that, of course, amounted to 10s. per share.

The resolutions were then carried unanimously, and the proceedings terminated.

LAKE VIEW AND BOULDER JUNCTION GOLD MINES, LIMITED.

The statutory meeting of the shareholders in the Lake View and Boulder Junction Gold Mines (Limited) was held on Tuesday, at the Cannon-street Hotel, Mr. JOHN McDONALD (Chairman of the company) presiding.

The SECRETARY (Mr. J. Durie Pattullo) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This company was formed in February last, with a capital of £150,000, for the purpose of acquiring and working about 101 acres of gold-bearing land in the Kalgoorlie district of Western Australia. The leases were duly acquired, and have been properly transferred to this company. They lie to the north-west of the Great Boulder, the Ivanhoe, and Lake View, and other well known properties in the Kalgoorlie district. Since this company took over the leases we have not had much opportunity of developing them with that energy which we intend to exercise in future, and which we have every expectation of doing efficiently. Many of you may not be aware that we secured the services of that well-known engineer, Mr. George Gray, on the occasion of his recent visit to this country, to take charge of our property. He returned to Kalgoorlie, and on the 26th ult. we had a cablegram from him stating that on Saturday last he would be at our property, and would examine the mine, and, after full examination, would send us a cablegram. Unfortunately, we have no cablegram from Mr. Gray to the present moment, but no doubt we shall have that cablegram very soon, and immediately it comes to hand it will be published through the Press. In the meantime, I may inform you that the development has been carried on under the direction of one of Mr. Gray's managers at Kalgoorlie, and although the time has been too short to hear from Mr. Gray with regard to the matter, we may feel quite certain that our business is being properly attended to. A cablegram was received by a firm in London connected with the vendors of the property to our company on May 7, which runs as follows:—"Mine looking well; struck two separate reefs beside Lake View showing gold; expect to locate Great Boulder lode by 80 feet further crosscutting." That was on the 7th ult., but it will be interesting to know whether Mr. Gray, when he sends us a cablegram, can endorse that statement. I have no doubt that he will be able to do so. You have, no doubt, observed from the prospectus that the cash working capital of the company was £30,000, with a reserve capital of 20,000 shares. Although £30,000 cash working capital may be considered a very fair amount in comparison with many other West Australian companies, your directors thought it would be advisable, as early as possible, to increase the working capital, by turning some of the 20,000 reserve shares into cash. We had the opportunity some little time ago of doing so, and took advantage of it, and we have placed 5000 shares at ½ premium, and we have given an option on 5000 more shares at ½ premium. That option will expire in the course of about three weeks. We expect by that means to have a further addition to our cash working capital of £11,875, which will make our total cash working capital £41,875. There can be no doubt in the mind of anyone who has a knowledge of the working of mining companies that you should have an abundance of working capital. A time may come when you may want to erect machinery, and may not have the money to provide for it. If you go to your shareholders you may provide the money, but the price of shares may come down, and the shareholders object to that. With regard to the balance of 10,000 shares of working capital, your directors at the present time do not propose to deal with those shares. The property, as you are aware, is a large one, and consists of 101 acres. Your directors have not decided as to the formation of any subsidiary companies, but it is a question which, at an early date, they will take into consideration. I am very sorry that we have not any further information to give you to-day, but you must bear in mind that since we took over the working of the property, a very short time has elapsed. I trust on the next occasion that we meet we will have a better account to give you of our working—such an account as you will approve of. If any shareholder wishes to ask any questions, I shall be glad to answer them. I may mention that we expect to receive fortnightly reports from Mr. Gray, and to get a cablegram occasionally when there is any matter of importance to cable about, and we intend to have these published in the newspapers directly we get them. Anything of very great importance we will send to the shareholders by circular.

Mr. YOUNG proposed, and Mr. G. N. WYATT seconded, a vote of thanks to the Chairman and directors.

The CHAIRMAN briefly replied, and the meeting terminated.

ARMADALE GOLD MINING COMPANY, LIMITED.

The statutory meeting of the shareholders in the Armadale Gold Mining Company (Limited) took place at the Cannon-street Hotel, on Monday, Colonel F. C. KYSER, C.B., presiding.

The SECRETARY (Mr. E. M. Robertson) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—You are called here to-day to attend what is called the statutory meeting of the company—a meeting which is bound to be held within four months of the formation of any Limited Liability concern. It is unusual on these occasions to give more than a bare outline of facts connected with the flotation and launching of a company of this description, but I think, considering the great success we have met with since the taking over of the property, and bearing in mind that this mine was in a higher state of development than most mines are when submitted to the public, it is due to you that I should give you further particulars of what has been done, what is being done, and what we hope to accomplish in the near future. This company went to allotment on February 20 last, and, as I dare say you are already aware, the necessary working capital was subscribed in full. The legal formalities connected with the transfer of the property were completed on April 6, and your directors carefully ascertained that everything connected with the transfer is correct and in order. According to the terms made with the vendors, 25 head of stamps were taken over with the property, but prior to this machinery being sent to Australia, two of our directors (one of whom, I may state, is an engineer by profession, and therefore fully qualified to report upon such matters) went to Grantham to inspect the whole of the plant before it left the makers' (Messrs. Hornsby and Sons) workshop. I am pleased to say, met with approval and prompt action on the part of the Western Australian Development Corporation—our respected parent. This machinery is now in Australia, and we hope that it will be in full working order very shortly. All delay caused in erecting it is on account of the block on the newly-opened railway to Coolgardie. However, our Mr. Frank Nicolas has made every effort to obtain the necessary transport, and I think has been successful in obtaining a promise of sufficient trucks to carry the whole plant to the mine within the next month, and I trust that his anticipations that "a dividend could be declared within a month of starting the full strength of the battery" will be realised. The mine, as you will have seen from the mine manager's fortnightly reports which have been regularly communicated to the papers, is exceptionally well developed, and there is a quantity of ore at grass waiting for the mill: the crushing has only been delayed by the want of transport for the machinery, as I mentioned just now. We are

given to understand that there is enough ore at grass and in sight to keep the battery going for many years. We might have had a trial crushing with a hired mill near the mine, but as that particular mill is very much worn, and not suitable to the soft ore characteristic of our mine, we thought it advisable to wait until we could use our own plant and so obtain the best possible results. I should tell you that although the property had been most favourably reported upon for the vendors by no less than five experts—namely, Dr. Charles Chewings, F.G.S., Captain Charles Truscott, M.E., Mr. A. Octavius Watkins, A.R.S.N., F.G.S., Dr. H. A. Ellis, Mr. Frank Nicolas, M.I.M.E., not one of whom we had the slightest reason to doubt, still your directors who, I may here state, have taken every precaution and have done everything in their power to protect the shareholders' interests, decided not to hand over the purchase consideration to the vendors until they had secured an independent report on the mine. So, accordingly, through the company's solicitors, Messrs. Francis and Johnson, the services of Mr. F. C. B. Vosper, who, I understand, is a very eminent engineer of high repute in West Australia, were retained. This expert made an exhaustive report—I am afraid too long and too full of technical descriptions for me to read in full—in which he expressed himself extremely pleased with the Armadale leases, and confirmed in every detail the reports of the other experts. He said that the mine had been opened up throughout in a thoroughly workmanlike manner, and that the exploratory work was of a nature to reflect the greatest credit upon those engaged in its development. In conclusion he added—I quote his own words—"After a very thorough examination of your mine and careful testing of the ore from several parts, I have arrived at the conclusion that you have a valuable property, though not a sensational one, and that with economic work dividends could be paid on ore yielding 7 dwts. to the ton. I believe that your average milling return will be 1 ounce to the ton, and such being the case, the large lode and unrivalled facilities as regards water and position should enable your mine to yield excellent profits on the capital invested." It is most pleasing to note that the mail reports, which we have received from time to time from our talented and painstaking consulting engineer, Mr. Frank Nicolas, in whom, I would remark, your directors have the greatest confidence, and who is working very hard to make your property what he himself calls it, one of the most important in West Australia, thoroughly justify the opinion given by Mr. Vosper and the other engineers. The wonderful width of the lodes—namely, 20 feet—is maintained, while the assays from the various parts of the mine keep up the average of from 20 dwts. to 30 dwts. to the ton, and the indications strongly point to an improvement as further depth is attained. I may also mention that an eminent engineer was deputed by a foreign Government to inspect the leading mines in the Coolgardie district, and we are to be congratulated that the name of our property was one put forward (unknown to us) for his personal inspection. We are still further to be congratulated, although his report has not been made public, that I am in a position to state that it is of a highly satisfactory nature. Now we come to one of the most vital questions in working any mining property of this description—namely, water. In his early reports, Mr. Nicolas advocated the building of a dam with pumping plant as absolutely necessary; but since those reports, a cable reached us on May 1 announcing the fact that water had been struck in the mine, and this was confirmed in a letter received this morning, the depth being 114 feet. This represents a saving to the company of some thousands of pounds. All difficulties connected with water failure, so far as we are able to judge, are now surmounted, and this lucky water strike practically places a few more thousand pounds at our disposal for working capital. It is never safe to prophesy unless you know, and no one can know what the future of a mine may be until after the trial crasings; and from many independent sources, from the painstaking work of our Mr. Nicolas and Mr. Welch, the mine manager, and from their carefully guarded and business worded reports, it is clear that the market value of our property is a safe investment, likely to increase in the near future. Those of you who follow the prices by taking in the financial papers must be well aware that whenever a quotation of this company's shares has been made they have always stood at a premium. Looking at the prices quoted to-day, they stand at 1-16 to 3-16 premium. This is a good omen for the company, and it must be satisfactory to the shareholders to know that their investments are not at a discount. It is the intention of the directors to keep expenses in London at a nominal figure, and reserve their resources to the further systematic development of your property. I hope that what I have told you will send you away pleased and happy in the possession of a property which is bound to produce good results, and that you will all be satisfied with the statements I have put forward to-day. Any questions which may be asked by any of you I will do my best to answer, I hope, to your satisfaction. (Applause.)

Mr. BAWLE: I think, Mr. Chairman, your speech has covered the whole of the ground. There were one or two questions I had in my mind to ask you, especially about the size of the lode, the water, and the trial crasings. I think you have anticipated them, as far as I can see, in a very satisfactory manner, and it is a great pity there are not more of the shareholders present. At the same time, those who are present I think will concur with me in affording the directors of this company our hearty congratulations on the good development and working of the mine, and I sincerely trust that when you are in that position that you will favour the shareholders with the dividend, which your consulting engineers promised, in the near future. (Applause.) I beg, therefore, to propose a vote of thanks to the Chairman and directors. (Applause.)

Mr. C. J. THOMAS: I shall be very happy to second that. The statement made has been very satisfactory to the shareholders, and I can only hope that the indications of the mine will be fully borne out. (Applause.)

The resolution was carried unanimously.

The CHAIRMAN, in reply, said: I have only to thank you for so kindly listening to me. No effort or trouble on the part of your directors will be wanting to make the mine a great success. I may say that we are all personally interested quite as much as you are, and hold as many shares, if not more, than any of you; therefore, what is your interest is doubly ours. (Applause.) I think before we part we ought really to pass a vote of thanks to Mr. Nicolas, our mining engineer. I am sure his energy and belief in this mine is beyond almost all credibility. He encouraged us when he was over here, and I am sorry to say that, had it not been for the very bad news we received about him, the machinery might have been got up by this time. Unfortunately, about three weeks ago he was attacked with typhoid fever. He has been very ill indeed, and he is now slowly recovering; but whilst in that state it was impossible for him to use his influence on the railway company in order to get priority of choice for this company in the matter of tracks. Had he been well, I am certain that before this the machinery would have arrived at the mines. I think we might pass a vote of thanks to Mr. Nicolas for his hard work in the past, and of sympathy with him in the very severe illness he is just recovering from. (Applause.)

Mr. BAWLE seconded the motion, which was agreed to, and the meeting then concluded.

ANGLO-COLORADO EXPLORATION SYNDICATE.

The statutory general meeting of the Anglo-Colorado Exploration Syndicate was held on Monday, at Winchester House, Old Broad-street, E.C., under the presidency of the Chairman, the Earl of Essex.

The SECRETARY (Mr. G. R. Saunders) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—In pursuance of the Act of Parliament which provides that every company which is incorporated must have its statutory meeting within four months of its incorporation, we call you together to-day. As a rule these statutory meetings are purely formal, for the simple reason that in four months, as a rule, there is very little done at all, but I am happy to be able to tell you to-day that our proceedings will not be purely

formal, as during the three months that we have been at work in Colorado we have made considerable progress with all our mines. As you know by the prospectus, we are not a gold mining company. We are simply formed, as it says here, for the purpose of carrying on, amongst other things, the business of exploring for and developing gold mining claims and properties in Cripple Creek, Colorado, and elsewhere, and for the purchase of options and concessions of mines, and floating them as subsidiary companies. The reports that we have had from our managing director, or rather our mining engineer, Mr. Moore, have been excellent, and a syndicate has taken up all the original options with the exception of the Croxton. Writing about the Croxton, Mr. Moore says: "I regret to say that the developments in this property do not justify me in advising the syndicate to pay anything like the sum of money demanded for this claim." So that acting on his advice, we have practically abandoned that claim for the present. With regard to the Ellipse, which Mr. Moore thinks very highly of indeed, I might read you a few extracts from his report. "The main vein is situated near the west end of the claim. Thus far it has been developed by a crosscut tunnel, and a level 160 feet long with the stone raised therefrom, of 150 feet in length to a height of 26 feet, and two winzes sunk from the floor of this level to a depth of 35 feet and 90 feet respectively. The top of the water standing in the 90 feet winze is at a depth of 43 feet below the floor of the level, consequently no exploration can be made in the lower portions of this winze until the new working shaft is completed to a sufficient depth, and a crosscut run therefrom to intersect the vein under the bottom of the winze and thus drain the same." I am glad to say in this connection that the work so far has been completed, and they have gone on to 150 feet with the shaft, and all they have to do is to crosscut, when we must strike the vein. The assays from the Ellipse vary. They run as high sometimes as 18 ounces, but the approximate average is about 3 ounces to the ton, or £12 to the ton. The Ellipse we hope to be able to float in about four months' time as a separate company. Now we come—and I have left it to the last—to the *bonne bouche* of the syndicate, that is the Rigi. The Rigi, as you know, is situated next to those well-known mines, the Great Portland and the Independence. The Independence is a mine of itself of most extraordinary value. I was reading an account the other day, in which it was stated that this mine produced £20,000 a month to its fortunate owner, who three years ago had not a shilling in his pockets. Over £600,000 of ore is reported to be blocked out in the Independence. To the north side of the Rigi is the Last Dollar vein, which, during the last year, has taken out about £100,000 of gold. The same vein continues through the Rigi and the Last Dollar. It has been traced for 1½ mile north and south, and ore is being extracted from it all along. Both the Great Portland and the Independence Mines have been developed for three or four years, while the Rigi has only been developed for three to six months. There is a shaft on the Portland 900 feet deep, and one in the Independence 600 feet deep, which prove the permanency of the mines in the immediate neighbourhood. We at present have gone down 145 feet, but we hope in time to get down to the lower depths. During the last three months—and this is from the report we have had—"We have been sinking and timbering this mine, and working the main shaft to a depth of 145 feet, and we have been drifting towards the vein 17 feet." But, according to a cable received, we have not yet quite reached the vein; we hope to do so in a very few days. This is the same vein which has been proved in the 43 feet level and the 67 feet level. In both levels drifts along the vein have been run 30 and 40 feet respectively, and in these levels pay ore is shown on the roof, floor, and both ends. The assays taken varied from 1 ounce to 7 ounces, and in one case to 259 ounces; and it is from these levels that the shipments of ore hereinafter mentioned have been made during the last month. We have just received a later cablegram from Mr. Moore, which arrived yesterday, saying that while extending the drift, 43 feet level, he came on a streak of ore 4 inches wide, which assayed 23 ounces to the ton, the vein itself varying from 1 to 3 feet. That, you may imagine, is marvellous. 23 ounces to the ton means a large fortune if we can only get enough of it. In order to test the value of the ore that we have in the Rigi, we sold 33 tons the other day, and it averaged about £14 per ton net, which I think you will consider very satisfactory. This is the Rigi Mine which we intend to bring out as a company very shortly, when we have still further tested the property. It was not quite big enough to float by itself, so our managing director has acquired the option of three others, to float with it—namely, the Lizzie May, the Yucatan, and the Lulu. I think you will agree with me that the work done has been fairly satisfactory. This I put down to two causes—one is that we have had a very good basis to work on, and the other is, we have two most capable men, on whom we thoroughly rely. One is Mr. Moore, the consulting engineer there, and the other is my friend Baron von Riekhofen, whom I think you all know personally. He was telling me the other day that he had made up his mind that this business shall go through, and he added that when he once made up his mind to do a thing he never looked back, or left any stone unturned to make it a success. Those are very hopeful words, and I hope his prophecy will come true. If so, we shall have to thank him for what he has done out there, and for the labour he has bestowed in preparing the documents and deeds. While on the subject, I may say our titles are perfectly good. They have been examined and found correct. They are all freehold titles with the exception of the Contention reef, which our solicitors are at present procuring from the United States Government. One word about the position of our properties. They are situated, as you know, in Cripple Creek, in Colorado. Cripple Creek is about 80 miles from Denver, and 20 miles from Colorado Springs. In most of these gold mining centres of the world they labour under one great disadvantage, and that is the extreme difficulty of transport. Cripple Creek is not so disadvantageously placed. It has no less than two railways running right through it, and a third one is in course of completion. It is also connected with all the chief places of the world by telegraphs and telephones, so that it is the very acme of a place where you can work a gold mine with the greatest advantage. About five years ago Cripple Creek was, more or less, an uninhabited rancho, but it has now about 30,000 inhabitants, and last year the output of gold was £1,600,000, whilst in 1891 it was only £40,000. Last year Cripple Creek itself produced one-sixth of the whole output of gold in the United States. America as a gold mining country compares very favourably with the other great centres of the world. In 1895 the Rand mines produced 2,277,638 ounces, Australia 2,000,000 ounces, Russia 1,495,320, and the United States 2,152,877 ounces; so that you see, although the Colorado and the Cripple Creek mines are, more or less, in their infancy, they yet produced within about 100,000 ounces as much as the Rand mines, which are supposed to be the greatest gold mining centres in the world. Among the criticisms which I have lately read in regard to Cripple Creek was one in which the writer said:—"Cripple Creek to-day is, beyond cavil, the richest fissure vein district in the annals of gold mining. The fortunes distributed amongst the many are small compared to those which will be made in the course of the next few years." I think we have the promise of a great future before us, and I must say I shall be bitterly disappointed—not only grievously disappointed, but extremely surprised—if that promise is not fulfilled. We all know that we must not be too sanguine. We all know that Rome was not built in a day. We all know that the fortunes of the Anglo-Colorado Exploration Syndicate will not be built in a day; but, when once Rome was built she flourished and she prospered. Let us hope, gentlemen, that the Anglo-Colorado Exploration Syndicate will do likewise. (Applause.)

Mr. GLOVER asked whether the Chairman could give any information as to the width of the fissure veins.

The CHAIRMAN replied that at the Rigi Mine, 43 feet in depth, the first crosscut was 10 feet in length, and the vein was 11 feet in width at that point, and at 67 feet level the width of vein was 5 feet.

Mr. J. A. GABLE said that there was no doubt whatever that they had facilities in Cripple Creek which would enable them to show very good results very shortly to all their shareholders.

Baron von RIEKHOFEN, in answer to Mr. GLOVER, said that the expenses of working the mine depended greatly on the hardness of

the rock, and on the depth at which the mine was worked. At the depths which they were working their mines the expenses ought not to exceed more than 1½ to 2 dwts. per ton for the extraction of ore, but in addition to that there was the treatment of the ore, which was a different thing. The Cripple Creek ores were treated by rather an expensive process. That cost them about 8 dwts. per ton, so that besides working and treatment by smelters, and the charge of hauling to the railway, the whole expense per ton would run up from 12 to 13 dwts. Therefore, anything above 13 dwts. per ton would bring a profit. In the Rigi they had an exceptionally rich mine, the average value of the ore being over 4 ounces to the ton. (Applause.)

On the motion of Mr. DOWLING, seconded by Mr. de FARMER, a vote of thanks was given to the Earl of Essex, the directors, and Mr. C. J. Moore, the consulting engineer.

The CHAIRMAN briefly acknowledged the compliment, and the proceedings then terminated.

KINSELLA GOLD MINES, LIMITED.

The first ordinary (statutory) general meeting of the Kinsella Gold Mines (Limited) was held on Tuesday, at Winchester House, Old Broad-street, E.C., Mr. NIGOL BROWN (the Chairman of the company) presiding.

The SECRETARY (Mr. H. A. Hedley) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—As you are aware, we have no special business to put before you to-day, but merely to comply with the Act of Parliament that a meeting must take place four months after the registration of a new company; and as our company has been reconstructed, we are now in that position. All the documents connected with the transfer of the property have been sent down to the office of the Minister of Mines, at Perth, for registration. The new company was registered on February 5, 1896. The capital of the new company is £100,000. The shares offered to shareholders in the old company (15s. paid up), at the rate of a share per share, amounted to £80,349, of which there have been taken up—1. By shareholders in the old company, £76,088; 2. By guarantor, £452; 3. Shares in Australia not yet applied for, £380,340; shares held in reserve, £19,660; total, £100,000. The cash realised (4s. per share on 76,540) amounted to £15,308; from Mines Selection Company, £30 10s.; balance of liquidator's account, £196 9s. 10d.—£15,534 19s. 10d. The loan to the Mines Selection Syndicate has been repaid with interest amounting to £2139 3s. 4d.; since then we have remitted cash to the mine, and paid for supplies and other current expenditure, £1413 1s. 6d.; in all, £6552 4s. 10d. This leaves an available cash balance of £9392 15s. There is 1s. per share uncalled on 76,540 shares, which amounts to £3827. This makes a total available and prospective balance for working capital at present of £12,809 15s. In addition to this we have 3800 unissued shares, held in Australia, not yet applied for; and in reserve 19,660 shares at £1 each. The first use to which the money that we have now obtained will be put will be to sink and develop the mine thoroughly. The only outlay on plant account will be the money required for pumping machinery, estimated to be about £2000. In the meantime the mine is sufficiently well equipped for the amount of ore which we are taking from it. You will hear later on from Mr. Frecheville a statement of the amount of work done on the mine, which is very small indeed, and a very vigorous policy of opening up the mine will be at once initiated as soon as our new manager arrives out. You will observe that the vein extends through our property for a distance of 2700 feet, on which ore has been found at intervals on the surface; the underground work, so far, only extends for a distance of about 900 feet. Referring to the statement that I made in October last to you of the expenditure of a capital of £20,000, the total expenditure to date is as follows:—From commencement to date of liquidation—plant, £12,117 14s. 6d.; mining, £7141 17s. 5d.; of general charges, £2692 16s. 1d.; London expenditure, £1880 8s. 6d.; purchase of Hidden Treasure, £1000; liquidator's expenditure, £338 10s. 3d. From date of liquidation—mines expenditure to end of April, £4076 3s. 4d.; London expenditure, including shipments, £713 1s. 6d. Less amount derived from gold sales, &c., £6261 18s. 4d. Total, £23,698 13s. 3d. In this connection I have to point out the very heavy carriage incurred in sending the machinery from Gerald Town to the mine, which amounted in all to £3263. As the railway is being pushed rapidly forward, it is clear that future expenditure in this way will be enormously reduced, and by the time that the mine is fully developed we hope that the railway will be finished, and thus enable us to send the rest of the machinery at a moderate rate of carriage. The average cost of mining for six months ending February, 1896, including hauling, sinking, driving, stoping, and general charges, amounted to £1 13s. 5d. per ton; milling, 16s. 3d. per ton; in all, £2 9s. 3d. per ton. The cost of doing the same work for the month of March, 1896, was:—Mining, £1 11s. 5d.; milling, 9s. 9d.; in all, £2 1s. 2d.; so that you see our costs are being substantially decreased as we proceed. What we hope for now is an improvement in the value of the ore taken from the mine. I will now call on Mr. Frecheville to read his report.

Mr. FRECHEVILLE said: The main shaft has been sunk to a depth of 120 feet, and the lode has been crosscut at 100 feet. Sinking was stopped after cutting the lode on account of the great influx of water, but as time went on the accumulation of water in the ground was removed, and the supply running into the shaft became notably less, and the attempt is now being made to sink the shaft deeper with the winding engines. If this attempt does not succeed, pumping engines will be required to sink the mine deeper. The work in the mine has been carried on at two levels, the 43 feet level and the 100 feet level. At the 43 feet level the work has extended along the vein for a distance of about 900 feet, and has exposed about 450 feet in length of lode, averaging about 5½ feet wide, which it was supposed would give about 1 ounce to the ton. The crushing, however, from this lode have not come up to that, the average yield on the plates having been about 10-12 dwts. of bullion, equivalent to 9 dwts. of fine gold per ton of ore. How much is lost in the tailings we cannot at present state with exactness. We were informed, when the earlier crasings were going on, that the loss was about 6 or 7 dwts. Since then we have been informed that the loss is much less, but at present we cannot give exact figures on this point. The ends of the drive 43 feet are being extended north and south on the lode, and it is hoped that more quartz of payable character will be opened up. At the 100 feet level the drive on the lode was extended about 190 feet to the north, when a crosscut was put through the lode, which was found to be about 15 feet wide, and on the eastern, or hanging wall side, a streak of 18 inches to 2 feet was found, which is reported to be worth about 10 dwts. per ton. The north drive has been continued for the last two months on this eastern streak, or make of quartz, and we are informed that the ore from here is going through the mill, and apparently has been turning out fairly well. The drive to the south on the lode at the 100 feet level has been extended about 377 feet. The lode for the whole of its distance has been poor. It has been discovered, however, that the make of quartz worked above in the 43 feet level is a distinct one from that on which the south drive has been carried at 100 feet, as a winze has been put down from the 43 feet level, and has gone down some 6 feet to the east of the drive at the 100 feet level. In the bottom of the winze, however, the quartz was pinched out, so that at present the south drive at the 100 feet is being continued on the poor lode, and the ground to the east will doubtless be proved from time to time by crosscuts. The ore milled has been taken in about equal quantities from the north and south drives at the 43 feet level, in each of which drives there are back stopes of about 150 feet in length, going up towards the surface. The manager has been instructed to push on the development work as rapidly as possible, and also to sink the mine deeper. There are two notable points which are worthy of being brought out strongly in connection with the work so far done; one is that the working expenses for the last few months, with ten stamps running, come to about 11 dwts. of bullion per ton, including mining, milling, and

general expenses, which is less than what might have been expected under the circumstances. The other point is that an abundance of water for the mill has been got from the mine. The engineers who reported on the mine in the first instance were Mr. F. W. Grey, formerly manager of the Nandydroog Mine in Mysore, who reported to the Mines Selection Company, and Messrs. Bewick, Moreing, and Co., who reported for the directors of the Kinsella Company. Both these engineers agreed in giving the ore a much higher value than has been borne out in results, Mr. Grey putting it down at 1½ ounce, and Messrs. Bewick, Moreing, and Co. at 2½ ounces. The present manager, Mr. Hewitson, also reported for many months after his arrival at the mine, and, in fact, until quite lately, that he thought the ore for about 450 feet in length along the lode so far opened out would mill about 1 ounce to the ton. As we see, these estimates have proved to be wrong, and it remains for us to see now whether the mine is a profitable one. So far the results with 10 stamps have been a yield of about 10·2 dwts. of bullion, with costs of about 11 dwts. of bullion per ton; so that although the monthly expenses are being nearly met, they are not quite covered by the returns from the 10 stamps. The railroad now being built up to the Marchison district will come to within a few miles of the mine, which will, doubtless, reduce the cost of working in many ways. Beyond this, we hope that the mines will open out sufficiently well in depth to enable the stamping power to be increased. Although we cannot work ore yielding 10 dwts. on the plates profitably with 10 stamps, we may expect to be able to work such ore at a profit, if we find we have a sufficiently abundant supply to keep (say) 20 or 30 stamps going regularly. This question of increasing the stamping power depends, of course, upon the quantity of ore which can be got out of the mine, and the manager, Mr. Hewitson, to whom we put the matter some little time ago, requested us to leave the question of adding more stamps open till he had time to see how the ground opened out at the 100 feet level. Work at the 100 feet level is being pushed on with all speed, and the board expect to be able to come to some decision in this matter soon. Although we have only 10 stamps erected, we have engines and boiler power for 20 stamps. We have engaged as manager Mr. Joe. Miller, for some time past engaged in mining on the Rand, who has also had Australian experience. Mr. Miller is now on his way out to Western Australia, and will take over the management from Mr. Hewitson.

GOLD ESTATES OF AUSTRALIA, LIMITED.

The first ordinary general meeting of the shareholders in the Gold Estates of Australia (Limited) was held on Tuesday, at Winchester House, E.C., Mr. DYSON WESTON (managing director) presiding.

The SECRETARY (Mr. J. G. Coldwells) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—It is very satisfactory to meet shareholders when they have, in the first year of a company's existence, been able to earn such large profits as are shown in the report and accounts now submitted to you, and it is even more pleasant to be able to say that the outlook for the future is equally good. (Applause.) I take it that you would wish me to address a few remarks to you in elaboration of the directors' report, and in order to give an idea of the present position of the company. To begin with our mining ventures, you will remember that at the commencement of our career we selected the then new mining camp of Menzies and as our centre of operations, and the success of the companies started by us to work mines on the Menzies main line of reef has shown that our selection was a good one. The difficulties which had then to be faced and overcome were considerable. The mines were situated 135 miles from the railway, so transport of stores and machinery was both slow and expensive. Water was scarce, and what was obtainable was bad in quality for domestic purposes. The supply of salt water struck in the mines was insufficient for milling purposes. In order to meet the latter difficulty we promptly formed Menzies Waterworks (Limited) to bring a good supply from Lake Bulea, and their powerful pumps are now forcing a fine supply of water through 7 miles of pipe line to Menzies, where the stamp batteries are using this supply for milling purposes. The first crushings of Menzies Reef and Menzies Cross quartz (280 tons for 352 ounces of gold) were effected with some 250,000 gallons of rain water caught and conserved in the dam on the Friday Mine, and if that dam had been larger, as it is now being made, an enormous body of fresh water could have been saved. Mr. C. G. Miller, one of your directors now in Australia, writes that so enormous was the late rainfall that "coach horses were drowned on the roads, and camels were standing with only their necks out of the water." That does not look like a waterless country; and I think we shall find that when the rainfall is conserved by great dams at the various natural catchments and reservoirs are excavated at the shallow lakes, the bugbear of the water supply will have practically vanished. The difficulty of transport is now rapidly disappearing, and with the extension of the railway from Coolgardie to Menzies and other important mining camps, we shall in a few months be mining under normal conditions—that is, transit will be quick, water plentiful, and supplies and labour at reasonable figures. Given these conditions, and with mines of such richness as are being opened up at various districts on these great gold fields, we shall probably witness such a prosperous mining industry as will attract population and capital from all parts of the world to West Australia, and what are now barren wastes will become thickly populated mining camps, connected by railways with the seaports of Fremantle and Albany. You will notice that we have not confined our attention to mining only. We have acquired a very fine freehold estate of 700 acres at Perth, which is intersected by the Eastern Railway and Guildford Road, and is, therefore, easy of access from the city. Prices have experienced a great advance already, and the property is now valued at £70,000. We are making roads, surveying and laying out the property, and our manager proposes to build houses, which he believes will let or sell readily. He has already applied to the Government for a railway station to be erected on the eastern portion of the property for the convenience of suburban residents. I need hardly say that, viewing the probabilities of a rush of population to the gold fields of Western Australia, the possibilities of a building estate so favourably and beautifully placed as this are quite beyond calculation. Adverting now to the various companies which we have launched, Menzies Gold Reef has proved itself the valuable property we believed it to be, though up to the present time only three out of the eight claims (or say about 56 out of a total of 132 acres on the main line of reef) have been operated. The mine on the Friday claim is opened up to a depth of about 200 feet. There is some 10,000 tons of quartz ready for sending to the mill, varying in value from 2 ounces to 10 ounces of gold per ton, and now that the battery is fairly at work, Menzies Reef shareholders should soon be receiving good dividends. So we are satisfied that we have put our friends and the public into a very profitable undertaking. There are very promising reefs on the Defoe and other claims now being developed. Menzies Cross Gold Claims was our next issue, and the developments and crushings of the Cross Mines leave little to be desired; they have the loan of 10 stamps of the Menzies Reef, 20 stamp battery until their own battery is erected. They have in eight very large bodies of rich quartz, as the late crushings have proved. We consider this to be a mine with a very promising future before it. Menzies Consolidated Gold Mines (Limited) was the next property we floated, and, but for the great block of traffic on the Government railway and the scarcity of labour at the beginning of the year, matters would have been further advanced than they are at these mines. However, the main point is that the developments are exposing fine bodies of payable quartz for treatment as soon as crushing machinery is erected. A good supply of water is being already obtained in the shafts, and a fine water right has been secured at a lake about 4 miles distant, so that both the requirements are present

for making the undertaking a profitable one. Our latest flotation was Menzies Alpha Leases (Limited), owning 44 acres adjoining the well-known Lady Shenton Mine. A vertical shaft has been sunk close to the Shenton boundary, and a crosscut has intersected a reef carrying "splendid gold." Whether this is the Shenton reef or not we cannot as yet be certain, but it is in the line of the bearing of that reef, which is also dipping towards our ground, and our manager, Mr. Dealey, has always considered it a certainty that the Shenton reef comes into the Alpha Leases. Another vertical shaft has been sunk in the southern part of the leases, and there a quartz reef of 2 feet wide has been struck, carrying 5 ounces gold per ton. Then at D shaft, which has been sunk near the south-west boundary, and in the line of the Main or Shenton reef, a reef has been intersected 2 feet 3 inches wide, carrying 3 ounces of gold per ton, and this reef would appear to be the same as that out in the vertical shaft near the Lady Shenton boundary at the north-west end of Alpha ground. The latest advices state that they were commencing to drive on the reef to ascertain the dimensions of this rich shoot of gold, and this being satisfactorily proved, crushing plant will be erected with all possible dispatch. The West Australian Gold Fields (Limited) is jointly interested with us in this undertaking, and we consider that the shares we hold in Menzies Alpha Leases (Limited) will become very valuable. I know that our consulting engineers, Messrs. Bewick, Moreing, and Co., are highly impressed with the value of the Alpha Leases, and if Mr. Moreing had been able to be present to-day, I am sure he would have made a statement to you in corroboration of what I say. Mr. Stoneham has also, I know, a very high opinion of the Alpha Leases, his information being obtained from quite independent sources. In all the companies formed by us, we have taken care to provide ample working capital for the development of the properties and their equipment with effective plant and machinery for treatment of the ore, and we consider it a creditable performance that, in spite of the difficulties which have had to be met in this new mining country, two of our companies are now crushing within 12 months from the date of their formation. As you are aware, we have other mining claims which are being prospected and opened up, and when the developments have sufficiently proved their value, companies will be formed to acquire and work them, or they may be sold to companies who own the adjoining ground. We are working on friendly terms with other exploring and financial companies, and we have joint ventures now in hand. We are large shareholders in the Octagon Explorers (Limited), and as that company's affairs in Australia are directed by men of long and successful colonial mining experience, there is little doubt that the profits made under their management of the Octagon Syndicate will be repeated under their management of the explorations of the New Octagon Company. Now that the West Australian Government are pushing the railways forward to Menzies, Hannan's, and other mining camps, the cost of supplies and labour will be considerably reduced, and, with the increased number of batteries crushing at the different mines, the gold output must increase by leaps and bounds, and the public will become convinced of the enormous wealth of the great gold field of Western Australia. I now come to the matter of the next dividend. We consider that our profits for the first five months of the present year will compare very favourably with the average of the past year's profits—and that without calculating the increase in value of our landed estates. The unrealised shares comprised in the balance carried forward on December 31 were valued at very low figures, and considerable realisations have since been effected at greatly enhanced prices. Your directors have, therefore, decided to pay, on July 1, an interim dividend for the current half-year of 3s. per share on the fully paid shares, and 1s. 6d. per share on the 10s. paid shares, being at the rate of 30 per cent. per annum. (Cheers.) You can understand that it is generally more profitable for the company to take its promotion money in the form of fully paid shares in the companies it floats, but time must necessarily be allowed for the realisation of such securities before the cash proceeds can be distributed amongst our shareholders; therefore, the dividends distributed may represent only a small portion of the total profits inclusive of unrealised shares. For many reasons it is not advisable to publish too many details of our business; therefore, shareholders will understand that it is in their interests that the accounts are presented in a condensed form. We regret that our colleague, Mr. C. M. Millar, has not returned from Australia in time to be present to-day, but he has written to us that he hopes to visit the fields on his way home, and he expects to arrive here about July 15, when we shall have the benefit of the information he has obtained during his visit to the scene of our operations. I have now to put the following resolution to the meeting:—"That the directors' report and the annual accounts, as presented, be and are hereby adopted." (Applause.)

Mr. F. P. CROWTHER seconded the resolution, and it was carried unanimously. The auditors, Messrs. Jackson, Pixley, Browning, Husey, and Co., were reappointed, and a vote of thanks to the Chairman terminated the proceedings.

ZEEHAN-MONTANA MINE (LIMITED).

The fourth ordinary general meeting of shareholders in the Zeehan-Montana Mine (Limited) was held on Tuesday at the office, 353, Mansion House Chambers, E.C.—Mr. D. C. Griffith, who presided, in moving the adoption of the report and accounts, went in detail through the latter, remarking that the financial policy of the board was modified by the necessity of keeping a good deal of money free. Passing on to refer to the mine itself, he said that the reserves, according to the manager, were larger than ever. It was not yet settled whether the present shaft would be sunk down lower, or another one should be started in the centre of the property. A new shaft would cost some £6000, and partly with the object of meeting this expenditure a further call of 2s. 6d. per share would be made shortly.—The motion for the adoption of the report and accounts was seconded by Mr. Alfred Mattei and carried unanimously.—The following resolution was also carried:—"That a further dividend at the rate of 8s. per fully paid share, and 5s. per share 12s. 6d. paid (making a total distribution for the year of 1s. 8s. 1d. and 1s. 0½d. per share respectively) be paid to all shareholders on the books of the company on June 30 next.—The meeting then terminated.

LOMA GOLD MINES (LIMITED).

An extraordinary general meeting of the shareholders in the Loma Gold Mines (Limited) was held at Winchester House, E.C., on Wednesday, Mr. H. S. Sankey presiding, for the purpose of considering resolutions to the effect that the company should be reconstructed; that with a view thereto it should be wound up voluntarily; that Mr. H. P. Creasey should be appointed liquidator; that a new company should be registered to be named the Esperanza Gold Mines; that the draft agreement submitted to the meeting made between the old and the proposed new companies should be approved; but that in the event of the liquidator not being able to carry through the reconstruction scheme, the company should be wound up in the ordinary course.—The Chairman said the scheme proposed was exactly the same as that put forward at the last meeting, with the exception that the liability was now one of 6d. only and not of 1s. 6d. per share. He pointed out that the last scheme was rejected at the confirmatory meeting merely by the vote of one shareholder. He moved resolutions in favour of the objects of the meeting. The resolutions, after some discussion, were put and carried, a demand for a poll by Mr. G. P. Ernest being ruled out of order.—Subsequently another meeting, called in compliance with a requisition of a number of shareholders, was held to consider the following resolution:—"That Messrs. H. Stuart Sankey, T. E. Briggs, and E. T. Tabor, and Major P. W. T. Rose, being directors of the Loma Gold Mines (Limited) be and each of them is hereby removed from the office of director, and that George Paul Ernest, R. Warner, K. Bashby, and H. Saqui, being duly qualified members, be and are hereby appointed directors of the company in the place of the directors removed."—Mr. Reis proposed the resolution and Dr. Perkins seconded it, but after a rather long discussion it was put to the meeting and lost.—A poll was demanded, but the Chairman again ruled that the necessary legal technicalities had not been complied with.

ST. HELEN'S DEVELOPMENT SYNDICATE (LIMITED).

An extraordinary general meeting of the St. Helen's Development Syndicate (Limited) took place on Thursday at Winchester House, Old Broad Street, E.C., the Chairman (Mr. Emerson Bainbridge) presiding. Mr. CHARLES F. HAWKINS (Assistant-Secretary) having read the notice calling the meeting.

The CHAIRMAN said: Gentlemen,—You will have learned by the notice which has been read that there is a special object in calling this meeting, and this object is for the purpose of enabling the shareholders to meet our general manager, Mr. Shaw. I may recall to your recollection that the last meeting of this Syndicate occurred in October last year, about three months before Mr. Shaw's return. Mr. Shaw returned to England from Africa on the 28th of December last, so that practically he has been in this country about five months. Some of the shareholders may think we have been rather long in calling them together for the purpose of hearing the statement, but, as you will know, there are several reasons which have transpired, and which explain that delay. In the first place, it is important for your directors to consider in what manner the large properties acquired in your interests by Mr. Shaw should be dealt with, and it was very important that Mr. Shaw should prepare for the use of the Board and the information of the shareholders, the report which was circulated a few weeks ago. I think you will bear me out when I say that there have been few reports issued to shareholders containing so full and complete information upon the properties they refer to, and showing as that report does such a large amount of valuable mining properties. (Applause.) By this time the shareholders have had an opportunity of pursuing, and, I hope, understanding what is contained in that very clear and lucid report; but besides that we thought it undesirable to call the shareholders together until the Board had decided, in conference with Mr. Shaw, as to dealing with a certain block of the claims which he brought forward, and a little more delay has taken place in the selection of that particular group. I am pleased to say that the Board have now made the selection of a certain group of claims in a district called the Sinanombi area, which Mr. Shaw will more particularly refer when he makes his speech to-day. That company will be a development company, for the purpose of further proving the important claims which Mr. Shaw acquired for us in Matabeleland. Fortunately for the syndicate, no difficulty has arisen with regard to our delay in meeting together, because you are aware that the temporary difficulties in Matabeleland have been a sufficient reason for our not taking any action with regard to the development of the properties until the disturbances there are over. If that is within measurable distance, one of the first actions we will take, after the formation of this subsidiary company, will be to send out and apply the plant for the development of the important gold properties which this Company is formed to deal with. I may mention with regard to the syndicate itself, it will interest those present to know that the finances of the syndicate, which amount to about £50,000 called up, have been dealt with in two ways. In the first place, and the most important direction, the money has been spent on the outlay incurred in acquiring the properties in Matabeleland, and the outlay in maturing and improving these properties. But besides that, the syndicate have a certain amount of capital at their disposal, and at the discretion of the Board, assisted very much by my co-director, Mr. Tapp, we have made certain investments, which, I believe I am safe in saying, have realised a profit to the syndicate of upwards of £20,000. (Cheers.) I do not think I need dwell more upon that. The directors have taken a very warm interest in the very important explorations we have done in Matabeleland. I believe they form the most important work done under the Chartered Company. In London there has been a very small expense to the syndicate, and the Board themselves have up to this moment not taken one single penny, as their remuneration will depend on the profit-making of the company itself. (Applause.) Our only expense has been the luxury of having a manager like our friend, Mr. Shaw, but when a man like him spends a year and a-half of his life in working hard there, and risks his absolute life and health in gaining such properties as he has acquired for us, he is entitled not only to a good remuneration, but to the rest which he has had since he came back to England. I have now much pleasure in asking Mr. Shaw to address you. (Applause.)

Mr. F. G. SHAW (general manager) said: Gentlemen—It is with great pleasure that I at last find myself able to address the shareholders of the St. Helen's Development Syndicate. I have been anxiously wishing for this opportunity since my return, and I want to point out to you that it is as much in the position of a fellow shareholder with yourselves as in that of your general manager that my remarks must be taken. I would like you to realise how very much our interests are and must be bound up with one another. During my absence from England, whilst working in your interests, I have always looked forward to this hour, which I feel will bring me into closer relationship with you all. With a few exceptions, the directors of the syndicate were the only ones among you whom I had personally known, and the cordial appreciation and relationship expressed in the letters from the Board has always been a guarantee of a similar friendly disposition on your parts. I will briefly recall the circumstances under which this Company was formed, and will sketch the work I have done and the work to which I desire to call your attention as being of most importance. The conception of this venture was my own. From my geological knowledge of South Africa I had anticipated that there was a large gold area to the north of the Limpopo. The vague reports brought down by a few traders, such men as Selous, &c., had tended to strengthen this view. On the outbreak of the Matabele war I brought the first three of your directors, Mr. Bainbridge, Mr. Tapp, and Mr. Causton, the latter of whom, I am sorry to say, has since retired, and has been succeeded by Mr. Holland. We formed a company, and called it the St. Helen's Development Syndicate, and on 30th June I left England for South Africa to pursue the work I had in view. My directors were anxious that before investing in any properties in Matabeleland, I should convince myself of the favourable prospects both as to the country, the reefs and the climate. On my arrival at the Cape I interviewed Mr. Rhodes, and was able to obtain from him letters which were of great importance to me in my work in South Africa. I was at the time representing an important London weekly paper, the *South African Review*, as special commissioner, and this fact very materially helped me in economically and rapidly travelling and inspecting the country. The Chartered Company gave me a great many facilities, and I am happy to say that my relationship with them has always been of the most friendly character. They recognise the important work we have done there, the money we have spent, and the fact that this work has been of a character to materially enhance the prosperity of their country. I can, therefore, assure you that in the treatment of our syndicate, the most favourable terms will be granted by the Chartered Company, if the circumstances are properly laid before their Board. After reporting, at the request of your Board, on some properties in Barberton and Johannesburg, I proceeded to Bulawayo, and was kindly received by Dr. Jameson. I travelled for four months in the various gold districts of Matabeleland, thoroughly inspecting the reefs, shafts, and old workings already discovered, writing short reports on each of the various properties, which I considered of any importance, and getting into friendly relationship with those men who had ground to sell, and which was, I considered worthy of attention. About December I had thoroughly made up my mind as to the great value and future that that country would attain, and had written home a number of long and exhaustive letters to your Board, some 200 pages of matter, detailing my daily work, and giving my full reasons for considering the country to be of great importance. I then recommended the buying of farms, allotments and claims. My directors, however, did not at that time recognise, as I recognised, the great value of these farms, &c., but rather wished me to confine my attention to mining matters. I was at the time in an excellent position to estimate the value of the country. My former experience in various parts of the world was of the greatest use to me. The men, who had taken up the gold claims, were, with very few exceptions, totally unacquainted with mining matters, and had merely pegged off the ancient workings, and in some cases had roughly cut through the *dolomite* which had blocked up the ancient holes and shafts until they reached the reef by the ancient workings. The various managers of the other syndicates had in most cases left Matabeleland

for London to take advantage of the boom in South African matters, which was generally expected. Although I foresaw that a golden opportunity was lost in my not going home to London, I considered that a more valuable result would ensue by my remaining there during the rainy season, at the time when money was scarce, and claims in the market many and cheap. I informed the Board of an immediate and certain rise in the Chartered Company's shares. They were at that time £2 10s. to £3, and they afterwards rose to £8. I then commenced to secure the properties, which I have since described in my general report, which has been sent round to the shareholders, and I wish to thoroughly impress upon you the fact that after doing a considerable amount of work on most of them, I implicitly believe in every property which I have acquired. Do not forget that I could have taken up for far less money—little as I have spent—ten or fifteen thousand claims, and many of the prospectors would gladly have allowed me to take over their entire properties merely on the chance of my floating them in England. It must be apparent to you at once that it has not been my object to get a great number of these claims, but only those I had considerable faith and belief in, and I had unlimited choice, with comparatively few men either with experience or money behind them to compete with me. The business arrangements I have made in South Africa are such as secure to the shareholders of the St. Helen's Development Syndicate, most thoroughly all the various properties we hold, and it is certain that if any trouble should arise in the future owing to the removal and destruction by the Matabele of the beacons of the various blocks of claims we hold, we shall be in a much stronger position than any other company there, as I can positively swear to, and have roughly surveyed every block, and brought home the plans from which have been taken the smaller plans issued in the general report. As your general manager, I was exceptionally lucky and fortunate in South Africa, and I can congratulate you on having properties, the great value of which it is impossible to realise at present. With regard to at least sixteen different blocks you now hold, I could not advise you to part with any one of them for less than four times the total amount of money that you have expended in the whole area of the ground you own in Matabeleland. (Applause.) I was able to acquire properties which the other and older companies wanted. My experience, as Government Mining Surveyor of Australia, enabled me to define the boundaries of our own claims sufficiently well to protect us in most cases against attempts at jumping, which have occurred in Matabeleland. An important action was brought by some persons against myself and the vendors of the Eileen reef, but I am glad to say the case was given against them with full costs, and they left the Court under circumstances not at all favourable to themselves. As you have, I hope, read my report, I will not epitomise the various properties contained in it. The report was in every respect cut down as much as possible in order to make it readable. I could, on many of the mines you have acquired, have written much more. The reefs themselves, in most cases, will prove permanent, and the average in this country are more numerous and richer in quantity and size than those of any other country in which it has been my fortune to work. A draft of the prospectus of our first subsidiary scheme has been sent round to you with the particulars of the reefs and the various shafts sunk. With reference to the specimens from our various mines, and especially with regard to the properties mentioned in this subsidiary scheme. I am sorry to say that a large case of very valuable specimens was stolen on its way home, but I have on the table before me some specimens of the Rosebery mine, which I have just broken up. No richer quartz than this has probably ever been obtained from South Africa, and this is the more remarkable, when you realise that this quartz was not selected, but broken down, *en masse*, from two feet of reef, and is the stone mentioned under the head of the Rosebery mine in the general report. It is proposed on the flotation of the subsidiary syndicate to proceed with the development of the various properties mentioned in it. A central mill will be placed at a convenient distance from each reef, and crushing will be commenced as soon as possible. I hope before very long to have this mill erected and crushing stone of at least 30 dwts. to the ton. The initial expenses will be high, and I have advised your provisional directors to have a large working capital. As the development of the various properties is proceeded with, rich ores will be raised from the various shafts and supplied to the central mill. I propose to put down at least ten working shafts in this new company, and in some cases to communicate by crosscuts and drives from shaft to shaft. Hoisting plants, aerial tramways, a large quantity of mining material, several pumps, &c., &c., will be necessary for carrying out the scheme I have partially formed. An efficient staff of men will have to be engaged, and a considerable amount of work lies before the future manager of this company. I feel so confident of the success of this venture, that I am myself applying for 10,000 shares. The development of the properties we have acquired and hold in this and other parts will, in the meanwhile, be rapidly pushed forward. The Duraven Extension, Queen's Extension, Long John, Eileen, Nellie, Germania, Mabel, Guinea Fowl, &c., &c., all of which I have great confidence in, will have permanent shafts as soon as I can conveniently get the necessary mining material to the spot. In most cases these shafts will be sunk by contract under my supervision, and from the results obtained other subsidiary gold mining companies will be formed. (Applause.) The confidence which will be gained by the successful development of the Sinanombi Syndicate will materially help in the future floating of the subsidiary companies, and I do not anticipate that the shareholders will be inclined to be so moderate as to cash demands as your directors have been in this Sinanombi Company, when floating the future gold mining companies on the various reefs just mentioned. And now, passing from the important mining matters, about which I shall be delighted to answer any inquiries, I wish to draw your attention to the valuable stands you hold in Bulawayo. Bulawayo must of necessity eventually become a large and important town, and the building scheme mentioned in my general report should have immediate attention. I believe that our St. Helen's Development Syndicate stands on a particularly sound and excellent monetary footing. We have only spent some £12,000 of our initial capital, and, therefore, I suppose we can calculate on at least having £150,000 working capital at our disposal for the parent syndicate—that is, if the 50,000 reserve shares are offered to yourselves and the public before allowing the already-allotted shares to fall to par. Some portion of this capital might be at once utilised in the erection of a number of substantial residences, and I am confident that a large and permanent income would arise from the rental as soon as they were finished. It might be, perhaps, wise to form a separate building society in connection with our stands. They have cost us but little money, and are well situated and in good positions in the towns. The next question which should receive immediate attention is that of our valuable farm lands. We hold about 56,000 acres of land in different parts of Matabeleland. My report to the directors will at once show you how well they are situated, so far as the mining districts are concerned. The importance of owning the land on which the gold claims exist, especially when in such large numbers as on our farms, must not be under-estimated. The Chartered Company are supposed by their original laws to buy back these farms at £3 per morgen (two acres). With all their present embarrassments on their hands, it would be ungenerous to insist on any rights we may consider we have in this matter, we have the right of stopping all mining work on our farms. The farms themselves, in addition to this value, are considered by the Cape Government Surveyor to be of the very best agricultural and grazing land existing in Matabeleland, and it is advisable at once to get some return from these valuable holdings. Farmers might, with a good deal of profit to themselves, be settled on these farms, and a number of good imported cattle be placed as soon as possible on them. These farms are what are called winter and summer lands, that is capable of grazing cattle all the year round, and are excellently watered. I have not myself had sufficient time to thoroughly form any decided ideas as to the best method of utilising these agricultural sources of wealth, but before I leave England I hope to leave a plan of some scheme which may be utilised by my directors here on my advice when in Matabeleland. Turning from our agricultural farms, we now come to the timber farms which we hold there, and I again once more wish to congratulate you on these valuable properties. I have specimens here cut from wood taken from our own farms, and you will see the excellent class of wood it is. When I tell you that this wood will be sought for not only in Africa but in England, I wish you to

understand I thoroughly mean what I say. Even at the present prices given by the timber-getters of Bulawayo for timber cut by them on our ground, that is £2 10s. per load, we have at the least estimated £250,000 worth of timber on these farms, besides the valuable land and the advantages of immediately starting a timber company must be apparent to you, as an income will at once arise by placing on the river which runs through one of our timber farms a large sawmill, and proceeding to cut and import into Bulawayo the timber which is now standing idle there. A large amount of capital will not be needed for this. It will in any case be necessary to have men stationed on these farms, as from my advices since leaving, the man I left there in charge says that the timber-getters are beginning to steal our timber. One of our numerous stands in Bulawayo can be utilised as a storing ground for the timber cut. As soon as the railway from Johannesburg is completed, this timber will be in great demand, and will be worth a great deal more than £2 10s. a load for use in the Johannesburg mines. A very valuable income should soon arise from this portion of our property in South Africa, and I do not anticipate that the expense of management will be very great. With regard to our shares, I should advise you to look upon the interests you hold in this syndicate as a permanent investment, to be held firmly by yourselves, with a view to the dividends and returns which must come to you, and in this respect I should thoroughly advise that no amalgamation is made with any other company without first and fully consulting me on the matter. Our properties are complete as they now stand, and require no additional claims to enhance their value, and the proposal to amalgamate them with 'his valuable claims have been but too frequently made. We are strong enough to develop these claims ourselves without obtaining the help of others. I have repeatedly expressed the opinion that our shares should be quoted in the various newspapers, and that it should not be a one-man market, as so many complaints have been made, and, in my opinion, justly made, to me by the shareholders. I trust that in the future the market may be an open one, and not confined to the rather restricted influence of one broker and one jobber. It is needless to point out to you, as business men, the bad effect that this has had up to the present date. Newspapers, it is true, in some cases require a small payment for the every-day insertion of our shares, but it is only right that our shareholders should individually see in their own paper how their shares stand. I should advise that the full complement of our directors should be made up, and that you appoint three other directors to assist in the labours of the present Board, and ones who will have time to give to the various important affairs that will in the future require attention from this company, and who may be able to lighten the work of the small number who at present control this company. I have sent home from Matabeleland over 500 pages of closely-printed matter in connection with the work of your Syndicate, in addition to the arduous work I have carried on there, which work, you must remember, I had to do myself, for only during the latter portion of the time had I the assistance of a clerk, Mr. Garbutt, and I was rather disappointed to see at the last general meeting that more information was not given to the shareholders as to what I had been doing. A general meeting should be held before long to consider the whole of this matter, to learn our financial position, as well as to discuss the few schemes which I have just mentioned. With regard to myself, I have, since I have been in England, been employed in carefully considering and going through the three or four hundred legal documents connected with our various properties in South Africa, with writing my general report, and with drawing general attention to Matabeleland. I have been thus able to raise the price of our shares from par to over £3, and notwithstanding the present depression caused by the Matabele outbreak, so far as I can gather from vague reports from the Stock Exchange, these are at this moment 2½. I do not wish to see them again fall. The latest advices from Bulawayo inform me that affairs will be a standstill for several months, and the transport from Mafeking will be extremely difficult owing to the rinderpest having killed off so many of the trex oxen employed for this work, so that there is very ample time while I am in England for a full consideration of the various schemes I have proposed, and for the collection of all materials and men, which I shall require if I continue to be your general manager. It must be remembered that our properties are extremely scattered, and a glance at the map I have supplied with the report of the properties of Matabeleland will at once show you the large distances separating the various properties. However much I should like it, it is impossible for me to be everywhere at once. With the best mules and carts it is impossible to do more than twenty-five miles a day constant travelling, and to travel from one to the other of our properties without stopping for a moment at any one of them, I should have to cover over 800 miles. This takes me nearly a month to accomplish, and leaves the mules in a condition needing a considerable rest. It will be, in my opinion, necessary that a staff of mine foremen and mechanics, &c., should be carefully selected, so that I can leave each district in charge of a competent man, together with the necessary hoisting plant, pumps, &c., which will be at once necessary, and that arrangements should be made at Mafeking for an immediate and safe delivery of these different shipments to the various points where they are required. The supplying of these men and the machinery necessary will devolve upon me, and also the making of the general arrangements for the transport to Mafeking and Bulawayo. I shall require a business manager in Bulawayo, and I shall devote myself to the general superintendence of all work going on for the St. Helen's Development Syndicate. It will be necessary to have offices in Bulawayo, and a manager's house will be required, with stables, &c., for our mules and horses. This should at once be proceeded with, as the health and comfort of your manager should in all cases be considered, and it will be better to build our own offices than to pay the large rents obtaining at Bulawayo. I had no time, and was too busy to think much of this before, as I was sleeping either in a wagon or on the Veldt when last out, but I consider, with the work and worry which I shall have before me, I shall require as little extra worry and as many comforts as I can reasonably expect out there. (Applause.) And thus, gentlemen, apologising for the length of my report, I wish to impress upon you once more the great importance and value I attach to our holdings in Matabeleland, to publicly thank my directors for the confidence they have reposed in me, and to once again direct your attention to the beautiful stones I have on the table. (Cheers.)

The CHAIRMAN: I am glad we have heard Mr. Shaw, and in the address he has given you will have apprehended that, not only has he the qualifications necessary for the management of a mine, but that he is able to constitute himself the adviser of the Board on Stock Exchange matters with regard to the market for the shares, and even with regard to the construction of the Board itself. No one can appreciate higher than the Board do the excellent services rendered in Matabeleland, and, so far as the general conduct of affairs is concerned; but the Board will depend on their own discretion, and the support of the shareholders in exercising that discretion. No doubt you would like to have a few words from Mr. Tapp, who has had so much to do with the welfare and development of the company. (Applause.)

Mr. C. J. TAPP: You all know how this Company was formed. A few of us got together, and applied for the shares at par. Every share has been either allotted at par for cash, or sold at a considerable premium in the market. I may mention one little investment we made—we put £1,000 into a certain stock, and we made £5,000 profit by it. (Applause.) Another £15,000 was invested in some shares at a discount, and after the cash of that company was distributed it gave us a considerable profit over par. Another investment was made in a company, where at present the shares are changing hands at double the amount we gave for them. (Applause.) I think, therefore, that the estimate of £25,000 of profit is well within the mark. It is an expense to get the thing quoted in the papers, and it is better to spend all the money on the mine than in the newspaper press. We want to make this a big thing. With regard to the Sinanombi Syndicate, we take half the capital, and we want the shareholders to help us. We want to keep this for our own shareholders. We have actually arranged for half the working capital, £25,000 in cash, and the only return we can have is some call on the reserve shares for a year at the same price. We have asked any shareholder within the next few days, who likes, to apply for shares at par. We will get them allotted, and he would have a letter from the Development Company, agreeing to give him a call of the same number of shares at par for a year. I think it is a splendid chance for the shareholders, and I shall

regret very much if we have to offer it to the public. I am a very large shareholder, and I mean to take my full proportion of any shares I can get. We are not giving you ten or twenty claims, but 190 claims, and they represent even something more if the reefs go down deeper, because they are all outcrop claims. If they go out of our mine we can work and trace them in depth; so that ten claims in your mine are as much as fifty would be on the Rand. The Government are interested in the claims, and are doing everything they can for us, and I do not believe that we shall have the same troubles and charges in Matabeleland as they have on the Rand. I have much pleasure in proposing a hearty vote of thanks to Mr. Shaw, for the interesting report he has given us. (Applause.)

Mr. STRONG: I have much pleasure in seconding that. From the speech Mr. Shaw has made to-day, we all recognise and realise that he has had a most arduous time, and I think we should pass a very hearty vote of thanks to him for the energy and experience he has displayed on our behalf. (Applause.)

The CHAIRMAN having invited questions, Mr. JEPHSON said that in regard to the Sinanombi Company, he did not see reference to any arrangement having been made with the Chartered Company, who, he supposed, were entitled to their percentage.

The CHAIRMAN replied that the word "development" in the title of the new company would enable them to bring it out without any payment to the Chartered Company. When they had proved the value of these claims subsidiary companies would be formed, which would come under the arrangement of the Chartered Company.

The vote of thanks was then put, and carried with acclamation. Mr. SHAW, in replying, said that it was a great satisfaction to anyone who thought he had performed a good work to feel it was appreciated by the people for whom it had been done. (Applause.)

A cordial vote of thanks to the Chairman closed the proceedings.

LOMAGUNDI EXPLORATION COMPANY LTD.

THE statutory meeting of the shareholders in the Lomagundi Exploration Company Limited, was held at Winchester House, E.C., on Thursday, under the presidency of Major-Gen. Bates (the chairman of the Company).

The SECRETARY (Mr. Munns) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen,—This is the statutory general meeting of the Company, and I am pleased to say that I have a very satisfactory account to make to the meeting of our working since the registration of the Company, from which you will be able to learn something of the prospects, which, I am sure, you will say are highly encouraging, and that no time has been lost in getting to active work will be apparent to you. The Company was formed to explore and prospect in the mining district of Lomagundi, which is situated in the province of Mashonaland; but though the Company has power to operate outside that region, I do not see any necessity for our doing so. That field is sufficiently large for very extensive mining operations for many companies; moreover, its richness and the facilities it possesses for economic mining are a sufficient inducement to us to continue in the Lomagundi district. Very little information has been published to throw light upon the value of the Lomagundi mines, beyond general admissions of the existence of numerous ancient workings; but it is a significant fact that such companies as De Beers, Selous Syndicate, Lomagundi Development Company, and other influential syndicates and development companies are acquiring holdings, and extending their interests on this field. Gentlemen, when I tell you that we own up to the present time 100 gold-mining claims in the Lomagundi district, I am sure you will agree with me that we have a very substantial holding, and that there has been no loss of time. All these claims occupy exceptionally well-favoured positions on the banks of the Angwa River. They are surrounded by claims belonging to De Beers, Nicholson's and Selous Syndicates; also to others of influence. Our immediate profits will be derived principally from two sources. First, from the sale of properties to subsidiary companies, and with regard to this I would call your attention to the fact that we have a sufficient number of claims now to float half-a-dozen subsidiary companies, and as soon as we are able to thoroughly recommend them as an investment, we shall lose no time in carrying out this programme. Second, from the working of our claims, and with regard to this source of profit, Mr. Whittaker, in a recent report, says: "You will be able in the near future to pay handsome dividends to your shareholders. Our properties are known as the Royal, 10 claims; Marion, 10 claims; Crown, 10 claims; Riverside, 10 claims; Buffalo, 10 claims; Giraffe, 10 claims; and Towkwe, 40 claims, the titles to all of which are duly registered with the acting Mining Registrar of Mashonaland. Ancient workings are very extensive on the claims, and may be taken as an infallible proof of their value—in fact, it has been these ancient workings that has been the guide in locating them. Mr. William Whittaker, the engineer of the Nicholson Syndicate, a well-known mining agent at Salisbury, Rhodesia, who is thoroughly acquainted with our properties, was instructed to make an independent report; one portion of it I will read to you, as the importance of it cannot be over-estimated. It is as follows: "Riverside and Marion reefs—I call your attention to these blocks as differing in formation to your other properties. The formation resembles that of the Johannesburg Main Reef, being 'banket.' The formation of all the other properties consists of talcoso slate. The Towkwe claims are a direct extension of the Lomagundi Development Syndicates properties, and the Buffalo claims are situated parallel and east of the Towkwe, and within one block of the Lomagundi Development Syndicate." Although I have at hand full information as to the other claims, which are all very valuable, I do not propose to deal with each separately; in fact, there is no necessity for me to do so, as you will have an opportunity of hearing from an absolutely reliable source further information with regard to our holdings. I refer to the presence here to-day of Mr. West, F.G.S., who has only quite recently returned to this country from South Africa. Mr. West's intimate acquaintance with the South African mining industry, his great abilities in mining matters, and his high reputation, will be a guarantee of the reliability of any information he will be good enough to give us. At a recent banquet given to the Right Hon. Cecil Rhodes at Umtali, on his return from Rhodesia, I observe that Mr. West had the honour of presiding, and I have no doubt that he can give a great deal of interesting information as to the future of Rhodesia, and we should all be very glad to be "in the know." Before I sit down I can assure Mr. West that we are all eagerly anticipating such news as he feels inclined to give us.

Mr. West said: Gentlemen,—Speaking as one fresh from Rhodesia, after a prolonged stay there, and with more or less intimate knowledge of the various districts comprising that country, it affords me much pleasure to say that I believe your Company has secured its large interests in what is undoubtedly one of the richest and most promising mining areas in the whole country. The Lomagundi district has not only a great number of very extensive old workings and a large number of mines developed in recent times, but it also possesses magnificent facilities for the successful employment of the most modern methods of working. As it is situated within easy reach of Salisbury, the capital of the country, it will very shortly participate in the benefits of railway communication with the east coast. Not to trespass upon your time too long with individual details of the several properties which you hold, I will only say that I consider every one of them possesses the essential elements which go to the making of a successful and profitable mine—that is to say, pay ore in sufficiently large bodies, accessible location, cheap labour, and excellent working facilities, in the shape of wood, water and situation. On all sides and in each case your claims are surrounded by the properties of important companies, who are either already actively engaged in the development of their holdings, or are preparing to do so. Two of your properties—the Marion and Riverside—I consider worthy of especial mention. They have a large low-grade banket formation running through the claims, precisely similar in appearance to the famous Randt conglomerate. In closing my few remarks, I should like to say that, after long residence in many parts of South Africa, I have returned from

THE FEDERATED INSTITUTION OF MINING ENGINEERS.

PRESIDENTIAL ADDRESS.

THE twenty-first general meeting of the Federated Institution of Mining Engineers was held, on Thursday, at the rooms of the Institution of Civil Engineers, in Great George-street, Westminster, when Mr. G. A. MITCHELL delivered his Presidential address, which we print almost in *extenso* as follows:—

It is my duty and privilege at this time to deliver to you an address, and in doing so I desire at the outset to express how great an honour I feel it is to fill the office of President of this Institution. While sensible of the honour of the position, I cannot but feel a sense of the accompanying responsibilities, and I fully realise that not the least serious of the duties is the delivery of a Presidential address at such a meeting as this. If what I say to you to-day is not new, if I speak on subjects which are familiar to you, you must bear with me and remember how increasingly difficult it becomes every year to secure fresh matter for such addresses. In a very general way I shall seek to bring before you some of the improvements and changes in mining, with special reference to the past 40 or 50 years. I choose this period, as the middle of the century is sufficiently remote to show many contrasts with the present, and yet sufficiently near not to be ancient history.

Many circumstances have had an influence in the production of the improvements and changes, and, among others, largely the following:—(1) Government legislation accompanied with the appointment of Inspectors of Mines; (2) the spread of education and knowledge among those engaged in mining; (3) the establishment of mining societies with the facilities afforded thereby for the publication of information, and for the discussion of matters affecting mining in its different branches. The influence of Inspectors of Mines was very great indeed during the early period when they were first appointed. They were men of intelligence and experience, and in reading their early reports we cannot but be struck by their patient and persistent endeavours to call attention to the improvements desirable and necessary for safety and economy. Their work was at first carried on against much opposition, but this opposition soon disappeared, except in a few cases, and it came to be recognised that their labours resulted in much good to the whole mining community. The increase in the knowledge of colliery managers, and the establishment of mining institutes which have been productive of so much good, were, as is well known, largely the result of mining legislation and the appointment of Inspectors. When we attempt to investigate the details of mining arrangements in use about 50 years ago, we are at the outset met with the difficulty that the knowledge of mining science was very much greater in some districts of the country than in others. This makes it far from easy to obtain information regarding the position of matters at the time. The North of England, for example, was far in advance of other districts, and a description that would apply to a North of England colliery would be very far from being applicable to, for instance, a Staffordshire colliery.

Perhaps there is nothing more important about a colliery than the ventilation of the workings. It is now almost a truism to say that good ventilation is not only a just and reasonable demand on the part of the miners, but is also an actual benefit to the owners, as men cannot do the same amount of work in defective air as in a good atmosphere. Forty or fifty years ago the desirability, from all points of view of having workings well ventilated was not fully recognised. In reading the reports of Inspectors of Mines in the early days, we are struck by their numerous allusions to defective ventilation, and we are also surprised to note the opposition they encountered at times in their efforts to get matters improved. They gradually overcame this opposition, largely by being able to convince the owners of the advantages of providing good air. One of the Inspectors—Herbert Mackworth, Inspector for the South-Western district—in his report for 1853, states that colliers have admitted that, with improved ventilation, they can do one-fourth more work, and the same Inspector, in his report for 1854, gives a striking example of the disadvantage, financially, of bad ventilation:—"At the United Mines in Cornwall the temperature of one of the levels was 105°. Three gangs of miners relieved one another every five minutes, and to cool themselves plunged into water 8 or 10 times a day. The level was costing £18 per fathom." A simple arrangement was suggested for improving the ventilation, and when the alteration was made the temperature was reduced to 80°, and the cost of driving the mine was reduced from £18 to £5 per fathom. The principle of splitting the air currents and carrying the air, on the best system, through the different parts of the mine, was well understood in most districts. For the more important collieries furnaces and steam jets were in use with more or less satisfactory results, but, in many cases, reliance was placed on natural ventilation, which was quite inadequate to produce a sufficient current. The first volume of the "Transactions" of the North of England Institute of Mining and Mechanical Engineers, 1852-53, is practically all devoted to the subject of ventilation, and much is said of the comparative advantages of the steam jet and furnace. The discussion regarding the merits of these methods was due partly to the fact that several parliamentary committees had recommended strongly the use of the steam jet in place of the furnace. This was specially the case in 1839, 1849, and 1851. It became evident that the recommendations were made without sufficient knowledge, when the comparative merits of the steam jet and of the furnace came to be experimentally investigated, the latter being found to be immeasurably superior to the former. In the various discussions at this time very little is said about mechanical ventilation, although the principle had long been understood.

As far back as 1556, Agricola in his book, "De Re Metallica," gives descriptions of several forms of fans and mechanical ventilators, many of them crude in form, but differing little in principle from the various forms of fans, &c., of the present day. About the end of the 18th and beginning of the 19th century several patents were taken out—one, for example, by William White in 1789, in which he described a fan wheel revolving in a case, the foul air being admitted at the axis, and expelled at the periphery. It is probable that it was on account of their supposed unreliability that such ventilators were so long in coming into extensive use. We find the fear of their breaking down referred to by Matthias Dunn in 1844, and by John Hedley in 1851. The first ventilator introduced to any great extent was that of Struvé, for which a patent was taken out in 1846. A paper was read before the British Association in 1848, describing the arrangement, and subsequently it was introduced at various collieries. It consisted of two large chambers moving up and down in water contained in a tank, so as to form a double pump. It seemed to work fairly well, and one is described as capable of passing 40,000 cubic feet of air per minute.

For the 10 years from 1844 to 1854 many patents were taken out in connection with the ventilating of mines. One inventor, for example (James Grant, in 1844), proposed that steam pipes

should be made to circulate round the workings, with here and there "trumped mouthed openings for the collection of the noxious air by means of the current of steam." This is only one example of many which showed great ignorance of the principles involved. To the improvements in ventilation, in conjunction with the improvement in the construction of safety lamps, is largely due the decrease in the fatal accidents from explosions. The death rate per 1000 persons, due to explosions of fire-damp, was 1·280 in 1851-55, and 0·281 in 1891-94, which shows a remarkable improvement. Unfortunately, we have still to deplore the occurrence from time to time of serious explosions accompanied with great loss of life, and, unhappily, there have been several such disasters during the past few months. We must express the most sincere sympathy for all who have any connection with the collieries concerned, or who are interested in any way in the men who have so unhappily lost their lives. We look forward, not without hope, to the time when such disasters will be unknown.

To the improvement in ventilation we may trace the great improvement in the health of miners. Mining 40 years ago was a very unhealthy occupation. This cannot be more strikingly shown than in an extract from a report published by the Odd Fellows' Society, and quoted by Herbert Mackworth, H.M. Inspector of Mines, in his report for the half-year to December 31, 1854, which is as follows:—"This class of lives show a very large amount of sickness at every period, and an increased sickness with the advance of years. From the very nature of the employment this must have been anticipated, but not to such an extent as appears in these results. At age 20, miners experience an average sickness of 48 per cent. more than the general class, at age 30 they have 70 per cent., at 40 years 78 per cent., at 50 years 76 per cent., and at 60 years 53 per cent. more average sickness than the general class of lives." Mr. Mackworth also states that the average number of years during which agricultural labourers of Great Britain continue to work, taken from the census returns of 1851, was 42 years 4 months, and of colliers 28 years 6 months. Mining, now, instead of being as it then was, one of the most unhealthy occupations, is one of the most healthy.

In the various details of the conveyance of coal from the working face to the surface there has been great progress since the middle of the century. It is difficult to believe that, as late as 1843, the bearer system was still in existence in the east of Scotland, in connection with the edge seam workings, but such is the case. It was in this year that female labour in mines was abolished, and we know from the reports that many of the females were employed in carrying coals to the surface in baskets on their backs. This degrading method of conveyance was not common, but in many collieries the arrangement was crude and antiquated. Baskets were filled at the working face, and after being dragged to the main roads were lifted on to wheeled carriages by means of cranes or otherwise, and taken to the shaft bottom. From these carriages the baskets were swung on to chains or ropes and conveyed up the shafts. Horse gins were still used for winding in some places. Where steam-engines were in use; sometimes a single engine was used for winding from as many as six shafts. This was notably the case in Staffordshire, and was the cause of many accidents. Guides in shafts were by no means universal, and cages were not always used.

(To be continued)

CORRESPONDENCE.

* We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.

COMPLETE AND CHEAP GOLD EXTRACTION.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Mr. Louis has rediscovered what was long ago known—that gold is not dissolved by S_2Cl_2 in water. If he will condescend to follow the Zymean metallurgy and use salt water nearly saturated he will get a very different result.

Gold leaf is not the best form to use; powdered gold such as heraldic artists use is better, but even then this partially dissolved gold is in the form of a brown magma, which will not filter readily, until a small crystal of nitrate of soda is introduced when the soluble auric perchloride is instantly formed. In this experiment heat must be used as with nitric acid or nitro-hydrochloric acid (aqua regia), for it is not a sulphide ore of gold, but a pure metal that is being treated, and, consequently, the intense chemical heat then generated and kept up is not to be expected where no great quantity of H_2SO_4 can be formed by the dissociation of the ore and of the elements of water with a production of free oxygen and free hydrogen, eventuating in a constant stream of nascent chlorine, which attacks all the metals present. This chlorine, of course, sooner or later, combines with the hydrogen liberated from the water, and forms hydrochloric acid gas in abundance.

But this experiment does not properly simulate what goes on with really refractory ores in the Zymean process, and is, therefore, of comparatively minor interest. Seeing is said to be believing, but it takes no little study to understand thoroughly what can and does take place in a process which some of the highest authorities in England have pronounced to be a "new metallurgy," capable of advantageously replacing everything but lead smelting, and even that where blende is also present on account of the losses of the precious metals which there occur.

It will be obvious that when water is separated into its elements, the free oxygen is just as available for the making of chlorine as if it were produced by means of manganese dioxide, and that from H_2SO_4 another atom of oxygen will give H_2SO_3 , which will, as usual, act on the salt ($NaCl$) to produce nascent chlorine. Thus, there is no doubt, will dissolve all the metals much better than hydrochloric acid, necessarily dilute, in the presence of large quantities of water.

It is a cheap process, carried out with cheap plant. It is not only a "total gold extraction" process, but a total metal and metalloids extraction process, and can be carried out at the mine as conveniently at 6000 or 7000 feet above sea level as on the seashore, and to the great profit of the mine owner.—I am, &c.,

M. TWEEDIE,
Major-General.

June 2.

—The cheques in payment of the dividend of No. 16 of 50 per cent. have been posted to shareholders of the CROWN REEF GOLD MINING COMPANY (LIMITED) registered on the books of the company at March 31.

—The HAURAKI GOLD MINING COMPANY (LIMITED) has declared a dividend of 1s. per share, free of income tax, payable on and after 24th instant.

PARIS LETTER.

The proposed new tax on investments.—Further activity in Gold Mining.—French interests in the Transvaal.—Heavy demand for Kaffirs.—Improvement in Copper.

THE difficulties that have stood in the way of a recovery in mining investments for so long a time past are being rapidly overcome, and the general position of these securities would be entirely satisfactory if it were not for the threatened imposition of the new tax upon revenue. Since the Government of M. Méline showed a disposition to take up the legacy of the late Ministry, and add a further burden to the financial interests of this country, all classes of investments have been seriously affected, and would doubtless be much more so if the great financial bodies had not shown themselves determined to resist the proposal to the utmost. For the moment there is some hope of the new project of law being defeated through the split that has taken place among the supporters of the Bill. Some would like to see the new tax applied to the revenue from every class of security, both home and foreign, but there is a very strong body which refuses to sanction the application of the tax to foreign stocks. They urge that such a tax would not be feasible, as the French investor would simply avoid the impost by dealing in shares on the foreign exchanges, and thus the business would be almost entirely transferred from Paris to London. This argument has appealed with some force to the framers of the Bill, who are now considering the ways and means of preventing investors from evading the tax in the manner suggested. It is not easy to imagine any expedient for compelling investors in foreign securities to pay any further addition to the revenue of the State, and the decision of the Commission is being awaited with a good deal of interest, not to say anxiety.

Apart from this drawback, all descriptions of mining investments are in a much more favourable situation than for a long while past. During the late quietude the different financial syndicates have been preparing for the inevitable recovery by giving attention to the most likely gold-bearing district, such as Coolgardie, Siberia, and California, and when the reports of engineers sent out to study the resources of these auriferous territories are to hand there is almost certain to be a great deal of activity in the floating of new companies. So far, nearly all the money for the various undertakings that have been launched in Russia and elsewhere has been provided by the leading capitalists and syndicates themselves. They did not consider that the moment was opportune in the then state of the market to invite the public to participate in these undertakings, and they were so much convinced of the future of the mining industry that they were quite ready to take all the risks of the preliminary work. Now that the market has recovered the promoter will no doubt make haste to invite subscriptions from investors who are showing such a strong partiality for mining enterprises of all descriptions. At the same time, the public are likely to display a much greater discrimination between the good and bad ventures than they have done hitherto. The supposed failure of the Watana Mine has made investors exceedingly cautious in accepting the glowing accounts of company promoters without any solid expert opinion to back them up, and even the splendid promises held out by the Suberbieville Gold Mining Company fail to awaken any more than an average interest in the success of this undertaking. The investor, as apart from the speculator, will nowadays take no risk, and his preference for shares is founded upon the dividend-paying capacity of the mines. He is, moreover, protected to a great extent by the brokers themselves, who are taking very stringent measures to prevent the market being flooded by worthless scrip, and it is reported that a powerful syndicate is now being formed with a view of proceeding against those concerns that have no legal standing in the market.

The amount of French capital invested in the Transvaal has become so enormous that the leading syndicates are leaving nothing undone to increase the direct representation of French shareholders upon the boards of the different companies. At present nearly all the concerns in which the French are largely interested have consented to admit members of the Banque Française de l'Afrique du Sud as directors, and this week three more nominations have been made. These are MM. de Catinel, Biver, and Lemerrier, the first-named being director of the Johannesburg branch of the "bank" and the others engineers, and the companies to which they are accredited are the East Rand, Jumpers, and Wemmer respectively. The guarantee which is thus afforded to the French shareholders that their interests are well looked after is doing a great deal towards strengthening confidence in South African shares, and judging from the way in which the French have held to their Kaffir shares through good and evil report, it is likely that they will continue to receive more consistent support here than elsewhere. The "banks" are also increasing their holdings very heavily by taking up huge blocks of shares, and this week the French Exploration Company have purchased the interest of Mr. S. Neumann in the Marie Louise Mine, which thus becomes a purely French undertaking. One or two other of the Transvaal mines are opening up agencies in Paris with French directors, and it is evident that the part played by France in the development of the Rand will be an increasingly important one.

As was to be expected, the clearing up of the political trouble in the Transvaal has immediately been followed by a heavy demand for all descriptions of Kaffir shares. While investors have been holding on to their shares in spite of the persistent "bearing" manoeuvres of the past few months, speculators have been biding their time, and intending to launch out on the market directly the release of the Pretoria prisoners relieved the industry of the strain of uncertainty that was weighing upon it. As soon as the news became known the brokers were overwhelmed with a sudden rush of orders to buy, and some of them have more commissions in hand even than during the speculative fever of last autumn. In several cases prices were forced up 20 francs and 25 francs in one day. The inflation was so sudden that every attempt was made to check it for fear that a further collapse would take place, and though the excitement has simmered down somewhat, the upward movement has continued with little interruption. East Rand, Ferreira's, Gold Fields, and other speculative shares benefited most from the heavy demand, while buyers here took up nearly all the large blocks of Chartered that were off-loaded from London. On Thursday a large business was done in all the leading shares, and prices further advanced a few points, but as the rate of progress is now rather slower, there is every probability of its being maintained without any serious reaction. Prices are still rather higher than those cabled over from London, and on Thursday the leading shares were dealt in at the following quotations:—Buffeldooms, 76 francs; Chartered, 107 francs; 50 cents; East Rand, 206 francs 50 cents; Ferreira's, 527 francs; Gold Fields, 340 francs; Kleinfontains, 101 francs; Randfontains, 85 francs 50 cents; Robinson Mine, 243 francs; Robinson Bank, 164 francs; Shebas, 54 francs; Simmer and Jacks, 540 francs; and Transvaal Consolidated, 63 francs 50 cents.

The steady rise in the value of copper is one of the principal features of the metal markets this week. In certain circles the movement is set down to speculation, but, if so, it is based upon a real improvement in the world's consumptive needs. The revival in the engineering industries has naturally very largely increased the requirements in copper, and as the limited production within the past year or two has kept stocks within reasonable limits the renewed demand has had the effect of at once firming up prices. The first stimulus to activity was given by the heavy purchases of copper for Germany, where the supplies of metal in reserve are wholly insufficient for the current needs. The electrical and engineering branches are so fully employed that an enormous amount of copper is going into consumption, and as these industries are assured of plenty of work for several months, the revival that has taken place in the metal must be sustained for some time to come. Investors here are so convinced of the future of copper that there has been an increasing demand during the past few days for shares in the copper mining companies, and especially those in Spain.

MINING IN CORNWALL

AND DEVON: NOTES ON MINING IN THE WEST.

(FROM OUR OWN CORRESPONDENT.)

THERE is very little news of any consequence in connection with Cornish mining this week, though the feeling that we are, as the Chairman of Wheal Grenville put it on Tuesday, "on a fringe of a revival in tin" is growing in spite of the easier tendency of the metal in the earlier part of the week. Mr. Gould devoted a large part of his speech to the probabilities of the tin market, and from whatever sources he obtains his information there is a wonderful similarity in the conclusions to which both he and Mr. Strauss come to, and as the latter gentleman expressed at Polberro meeting last week. Although there may be some little reduction in the output it is obvious, in view of the fact that tin is by no means so scarce as it once appeared to be, that if any substantial advance in price is to be obtained, it must be by the stimulation of consumption. That process of expansion appears to be going on now, and all the indications are in favour of its continuance and in equal if not greater proportion. As new countries are being opened up so they must form new markets, for tin in some form or other is quite a necessity of civilisation. The possibilities of a market for articles of tin manufacture in South Africa, for instance, are immense, and the opening up of China should also offer facilities for an increased output. It does seem somewhat strange that with the tin-plate industry and the Cornish mining industry both in such a state of depression, some conference has not taken place between representatives of them in the hope of opening up some new markets. Concerted action in this direction might lead to some advantage to both South Wales and Cornwall.

SPEAKING of Mr. Gould reminds us that Wheal Grenville meeting on Tuesday was by no means disappointing, though the shareholders were unable to carry away any of the fruits of the labour of their servants. But it can scarcely be disappointing to shareholders to have to forego profits with black tin at an average price of £37 throughout the quarter. There is no question as to the value of Wheal Grenville, and although Mr. Gould has the reputation of possessing a very sanguine temperament, it is felt in Cornwall that the manner in which he speaks of his favourite mine is fully justified by the indications. We would, however, urge upon the committee to follow up the remarks of their manager in the provision of further rock-drilling machinery. Time is money in mining more than anything, and if by boring machinery certain points of importance can be reached earlier, the machinery will, time after time, save its prime cost. Instead of the two drills which they have now, such a large and progressive mine as Grenville ought to possess an air compressor equal to the fine machinery at Carn Brea, to which we have several times alluded, and it is to be hoped, for the sake of the property, that the committee will see their way, at a very early date, to recommend the erection of the machinery. If Grenville was a limited company, this is an expense which could fairly be charged to capital, and for which capital could easily be raised. Indeed, we suggest to Grenville whether the formation of a big limited company to take West Frances and South Condurow would not in the near future be worth consideration.

THE Wheal Agar and East Pool business drags on, much to the chagrin and vexation of most people. Mr. Strauss has again taken up the cudgels, and in a letter which is generally commended, uses some straightforward language. He threatens that unless arbitrators are appointed within a given time he will decline to further work the engine. The result of the letter was that within 24 hours of the publication of it East Pool committee had met and appointed Captain Josiah Thomas, J.P., as their arbitrator. So far as we know at the time of writing, Wheal Agar had not named anyone, but possibly they would agree to accept Captain Thomas, and leave the whole thing in his hands. Anyhow, there ought now to be no difficulty in the matter. If there is, certain people will know how to act.

THERE is not much doing in Dolcoath, but the present prospects of the mine are so excellent that these shares are bound to feel the influence of the improvement as soon as it manifests itself. They have restarted the sinking of Williams' shaft, the bricking of the portion already sunk being now completed. The work will be pushed on with more vigour than ever by rock drills. Stray Park shaft is also being sunk, and important developments in this part of the sett are confidently anticipated. The tenders for a year's supply of coal—10,000 tons—were received on Wednesday, but will not be considered until the next meeting of directors. This is a new departure at Dolcoath, and is likely to increase public confidence in the management.

No part of Cornwall has been harder hit by the depression than the once flourishing Breage and Germoe district, where Wheal Vor, Great Work, and other celebrated mines once rivalled Dolcoath itself in richness. Now, the solitary mine at work is Wheal Metal and Flow, where operations are on rather a small scale. It is rumoured, however, that the often-repeated attempts to secure capital for the re-starting of Great Work have at last been crowned with success, and that this once famous mine will shortly be added to the list of "going concerns." A promising improvement in the 200 level going west in Wheal Basset is reported.

The numbers are published of the first mortgage bonds of the NITHRATH RAILWAYS COMPANY (LIMITED), which have been drawn for redemption at the rate of 105 per cent. on July 1 next, when the interest thereon will cease.

The following particulars are published for public information only.

THE INVICTA GOLD MINES, LIMITED.

(WILD HORSE CREEK, BRITISH COLUMBIA.)

Registered under the Companies Acts 1862 to 1890.

Capital £100,000, in 100,000 Shares of £1 each.

Of which 15,000 are set aside for Working Capital.

Issued Capital . . . £95,807.

DIRECTORS.

EDWARD RAWLINGS, Esq., Director of the Woodstock (Transvaal) Gold Mines (Limited).

JOHN W. HARKER, Esq., Director of the Transvaal Exploring Company (Limited).

RICHARD PEARCE, Esq., Director of the Lydenburg Minerals Exploring Company (Limited).

A. E. WALTON, Esq., F.G.S., M.L.M.M.

BANKERS.

MANCHESTER AND LIVERPOOL DISTRICT BANKING COMPANY (LIMITED).

SOLICITORS.

Messrs. WAINWRIGHT AND CO., 9, Staple Inn, London, W.C.

AUDITORS.

Messrs. JACOBSON, PILEY, BROWNING, HUSEY AND CO., 58, Coleman Street, London, E.C.

SECRETARY AND OFFICES.

F. J. WARNER, Esq., 25, Abchurch Lane, London, E.C.

The Company has acquired and commenced working upon the following gold mining claims—viz.: Ah Chow, Jerome Stanley Evans, Schroder, Fun Yel, Ah Yow, Wing Kel, Goo Quong, Sun Qui, Perseverance, and Griffiths, together with extensive water rights situated on the Wild Horse Creek, British Columbia, and held direct from the Government of that province.

The Wild Horse Creek is well known for the richness of its gold placers. In a work on "British Columbia: Its Present Resources and Future Possibilities," published in 1833 by direction of the Provincial Government, it is estimated that gold to the value of \$10,000,000 has been obtained therefrom.

The property acquired by the Company comprises a continuous bank of auriferous gravel, about a mile in length, estimated to contain at least 20,000,000 cubic yards of gravel. The value of this gravel, taken on the basis of the past workings, should produce from 2d. to 2s. and upwards per cubic yard.

Large amounts were expended, before the purchase of the property by this company, for the establishment of dams, ditches, water flumes, pipes, sluices, buildings, &c., which will be available for future working. The main ditch, $4\frac{1}{2}$ miles in length, is capable of delivering 1,000 miners' inches of water per day, at a height of 400 feet above the lowest level of the gravel bank.

A special feature is that the water rights practically command the water supply of the whole creek.

It is intended that the company shall carry on operations on an extensive scale by enlarging the main ditch to a capacity of 2,000 miners' inches of water per day, and providing a further complete and powerful hydraulic plant of the most approved pattern, which will enable the natural advantages of the property to be utilised to the fullest extent, and the separation of the gold from the gravel to be effected in the most economical manner. It is also intended to erect further electric lighting plant, which can easily be worked by water power, so that operations may be carried on night and day.

Estimates of the cost of efficiently equipping the mine have been prepared for the vendor by Mr. A. K. Beaton, an experienced Californian hydraulic mining engineer, who has for the last two seasons superintended the work of the shareholders.

Mr. Beaton is of opinion that, when the mine is equipped as proposed, at least 4000 cubic yards of gravel can be treated per day of twenty-four hours, from which he estimates a net return of gold of at least 12 cents (equal to sixpence) per yard. Such an output, say over 700,000 cubic yards in a working season, at the above estimated yield, should give handsome dividends to the shareholders.

It is well known that hydraulic mining is the cheapest form of mining. No expensive machinery is required, and the operation of extracting the gold involves a comparatively small cost for labour and works. Experience on Californian mines has proved that gravel yielding only 5 cents of gold (equal to twopence) per cubic yard can be worked at a profit. With the area of gravel to be worked, and with the natural advantages which exist on this property, there appears to be every prospect of a profitable future for the Company.

Sufficient working capital has been provided for the necessary machinery and for executing the proposed new works.

In addition to the auriferous gravel banks referred to, it is held that a deep lead, or channel, exists at a depth of from 30 to 40 feet below the present workings, similar to the deep leads of California, which have proved to be so phenomenally rich. It is impossible to determine at present the value of the deposit which may be found in such a channel, but it would probably be safe to estimate it as richer than that of the bank now exposed. At a comparatively small cost a shaft could be sunk at a point which has been indicated by Mr. Beaton, and a tunnel run east and west, crossing the channel from which the deep lead gravel could be worked by means of hydraulic elevators, ample power for working which exists on the property. It is intended to prove this deep lead, as its existence may add largely to the revenues of the Company.

There is an abundance of timber on the property available for mining purposes, and labour can be obtained at moderate rates.

The above statements are based upon the report of Mr. J. A. Skerchiev, F.R.G.S., C. and M.E., and Mr. M. E. Beaton, supplied by the vendor to the directors. A copy of Mr. Skerchiev's report can be obtained on application at the offices of the Company.

Since the Company acquired possession of the property, Mr. A. D. Mitchell has been installed as manager, and has reported very favourably to the Directors thereon.

Operations have already been commenced, having for their object the immediate resumption of working with the existing plant, pending the completion of the additional work.

HANNAN'S DEVELOPMENT AND FINANCE CORPORATION, LIMITED.

THE following circular has been issued to the shareholders:—

Although this corporation has been at work barely 10 weeks, your directors have been able to secure so many important and valuable mining interests in the Hannan's district, that they consider it advisable to take the opportunity of acquainting the shareholders with the very favourable prospects of the corporation. Although but a very short time has elapsed since the corporation was formed, there has been a large amount of development work effected upon Hannan's, more than justifying the expectations which the directors put forward in the prospectus. It is now generally believed, in well-informed quarters, that the Hannan's Gold Fields will turn out to be by far the richest auriferous deposit in the whole of West Australia, and your directors congratulate the shareholders that they have been so successful in securing properties in the very heart of the most valuable portion of Hannan's, as may be seen on reference to the map sent herewith. Steps have already been taken to transfer three of the leases acquired, and some subsidiary companies to take over these properties have already been registered. As the corporation was only incorporated so recently as March last, your directors venture to think that the shareholders will appreciate that the corporation has been kept well ahead of the rapid developments which have taken place in the Kalgoorlie district.

HANNAN'S NORTH CROCUS—This is an exceptionally well situated property, on the direct line of the Brownhill lode, and adjoins the northern boundary of the well-known Crocus Mine. Since your directors were fortunate enough to secure this property, the shares of the only mine intervening between the Crocus and the Brownhill, namely, Crocus South United, have advanced to 200 per cent. premium. It has been proved that the Brownhill lode extends throughout the Crocus South United, Crocus, and also the property acquired by the North Crocus. As will be seen on reference to the map, the whole of the surrounding properties are well-known ventures, the shares of all of which are already standing at considerable premiums on the London market. The long expected crushing return from the Brownhill Mine has now been declared, and shows a result of nearly 5 ounces to

the ton, an output likely to be exceeded when the machinery is in full working order. On the Crocus, trial crushings have resulted in as much as 20 ounces of gold to the ton. Captain Oats, reporting on the Crocus, says:—"There is no question in my mind that your mine will stand in the first rank among the gold-producers of this district. I have no hesitation in saying that with proper management you will have a mine that will yield good profits to the investor." Your directors, in quoting the opinion of this well-known authority, would especially point out that, if so strong an opinion can be expressed regarding Hannan's Crocus, it must also apply in equally strong terms to the property in which your corporation is interested. Hannan's North Crocus will be issued immediately, and from the way developments have opened up, your directors are of the opinion that it will be wise to retain as large an interest as possible in the shares of this company.

HANNAN'S REEFS.—Lease No. 1583 E is another mining lease of 22 acres in extent, for which a subsidiary company has already been registered with a capital of £120,000, and will be issued at any early date. This property lies on the eastern side of the Hannan's Gold Belt, and adjoins the Brown Hill North, which was recently floated on the London market. The reports on the Brownhill North amply confirm the very favourable opinions which have been formed of this lease, and there can be little doubt in the opinion of your directors that this property will turn out equally valuable with the successful venture which it now adjoins. As will be seen on reference to the map, this and the three adjoining blocks lie well within the developed area, and from the fact that claims are taken up all round it, shareholders may be assured that this lease will not belie the favourable opinions which have been formed on the developments already effected. The area of the property is sufficient to ensure a long life to the mine, and the trial crushing of stone taken from the lodes which must be extensions of those running through Hannan's reefs, points, in the opinion of your directors, to a very definite and successful issue for this corporation. Mr. H. W. Taylor, in a recent report on the adjoining property, the Brownhill North, stated that it contains 11 known lode formations, one of which is upwards of 25 feet in width. Mr. George Grey, referring to the water supply of this property, says:—"There will be a very large supply of water available for distribution at a low cost for the mines in the locality, and you should be able to obtain sufficient for 20 heads of stamps." Such a number of stamps working on Hannan's reefs would be able, if employed for only a few months of the year, to secure very large dividends for the shareholders in this property, and benefit the shareholders in Hannan's Development and Finance Corporation (Limited) to a proportionate degree.

HANNAN'S GIFTS GOLD MINES, LIMITED (Capital £110,000).—This company is the third subsidiary undertaking which has been formed to take over the block of 18 acres comprised in Lease 1282, and is really an extension of Hannan's Reefs. The remarks which we have made in respect of Hannan's Reefs would also apply in equal strength to Hannan's Gifts, and we think that this property is as promising a one as any which the corporation has acquired. A very large amount of development work has been effected close to the western boundary of this mine, and amply justifies the favourable opinion which your directors have formed of the property. It lies within 30 or 40 chains of the famous Brownhill Mine, in a south-westerly direction, and consequently all properties in this district, on the success which has attended that venture, have received much more attention than on any other part of this wonderful gold field.

Your directors still retain leases 1493 E, 1763 E, and 13297 E, which it is proposed as soon as opportunity occurs, to transfer to subsidiary companies. These three blocks adjoin the properties referred to in the two preceding paragraphs, and your directors consider that in these leases the shareholders have an exceedingly valuable asset. Either of these leases can be sold right out to pay very handsome profits. Lying to the north of the town of Kalgoorlie are two claims owned by the corporation, having a total area of 24 acres. Both these properties are on the main line of the Boulder reef, and from their exceedingly promising position should also be a valuable acquisition. The railway to Menzies will pass close by these leases, and consequently the cost of freight on mining plant and supplies will be considerably reduced. The whole of the leases north of Kalgoorlie are opening up remarkably well, and as the main reefs have been proved to continue 5 miles north of the town, there can be little doubt as to the future of these leases. Advice from Mr. R. Byass, the well-known mining expert, to whom your directors referred for an opinion on these properties, are unanimous in favour of their acquisition, and from private advices received from that gentleman, both by cable and letter, your directors are quite satisfied that they have secured for the shareholders in this corporation two properties which will compare very favourably with any other of the well-known mines that have been opened up north of the Kalgoorlie township. The flotation of any one of the properties will result in a very substantial cash profit to this corporation, and your directors feel that they are justified in believing from the forward state of the negotiations for sale that they will be in a position to pay an interim dividend at a very early date. With the proposal of the further block in respect of which companies have already been formed, a still more favourable position will have to be attained for your corporation; but enough has been said to prove to shareholders that the expectation of large and profitable returns contained in the prospectus will be more than realised. In summing up the position, your directors feel that they have done all that was possible to make the shares of this corporation a valuable and improving investment, and equal to any contained in the list of similar enterprises incorporated in the prospectus of this corporation, which have been established for a much longer time. Your directors are certain, from the unqualified success which has attended their efforts hitherto, that the shareholders will reap from the investment quite as substantial profits as in any of the companies already referred to.

The deferred shares of Hannan's Development and Finance Corporation are already largely dealt in at 5½d. or a premium of £4 15s. per £1 share, and with the large amount of promising business in hand and on offer, the shareholders of the corporation may regard regular dividend returns as certain, whilst the large holding which this corporation will retain in the share of its subsidiary issues will also ensure further substantial profits. At the four-monthly (or statutory meeting), notice of which will be sent to you, the directors are pleased to say that they anticipate being in a position to declare a substantial dividend, which will be satisfactory to the shareholders, an event which is seldom, if ever, consummated within four months of registration of a company, and a few months of the commencement of work.—By order of the Board, 5, Moorgate-street Buildings, E.C., May 30.

The MYSORE GOLD MINING COMPANY (LIMITED) has sold the gold obtained during the month of April last, which realised £34,814 16s 7d.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

APPANTOO.—During the month of May mill crushed 570 tons quartz, yielding 376 ounces gold. Milling delayed owing to shortness of steam power.

BALAGHAT MYSORE.—The directors have received the following cablegram from Mr. Richards:—"268 ounces of gold obtained from 2700 tons of tailings."

BONNIE DUNDEE.—Cablegram from Charters Towers:—"We are making good progress with the No. 3 vertical shaft. Have sunk 24 feet during the fortnight, making a total of 1300 feet from surface. We have 600 tons of quartz at grass, estimated to be worth 30 dwts. per ton. Shall soon start to crush."

BURMA RUBY MINES.—The result of the mining for the month of May was 18,000 loads washed, producing rubies valued at Rs. 38,000.

BARRETT.—The manager cables per 3rd inst.:—"May gold 500 ounces. New machinery will be at work about June 20."

BARRETT GOLD.—The manager cables per 3rd inst.:—"May gold 500 ounces; new machinery will be at work about June 20."

BALAGHAT MYSORE.—The following cablegram has been received from Mr. Richards:—"268 ounces of gold obtained from 27,000 tons of tailings."

BIG BLOW.—Translation of cable received from Mr. W. M. Vivian, mines manager, June 5:—"Total amount crushed 106 tons—31 ounces of gold. Average sample of tailings 10 dwts. per ton, very nearly."—Note by the secretary. The amount of the return is not unsatisfactory, as indicating the total value of the quartz, but it cannot be considered satisfactory as regards extraction. The manager explains as the reason of the large amount left in the tailings, that this has been caused by the water getting slimed by repeated using, consequently the gold did not properly amalgamate. There is nothing of a refractory character in the nature of the ore, it being free milling, and no special process of extraction is necessary, all that is required being a sufficient water supply.

CHAMPION REEF (Nannine, W.A.).—Cable received from local secretary, dated Melbourne, June 2:—"The resident manager's report northern outcrop developments superior last week. Free gold freely visible to the eye."

COROMANDEL.—Telegram from the mine dated June 2:—"Have struck the lode at the bottom of Prospect shaft 3 feet, assaying 1½ ounces per ton"; also a telegram from the mine dated June 3 giving last month's return of gold as follows:—"1150 tons of quartz produced 580 ounces of gold."

CHAMPION REEF.—The London office has received a telegram from the mine, dated June 4, giving last month's return of gold as follows:—"5980 tons of stone produced 6229 ounces of gold; 2010 tons of tailings produced 510 ounces of gold; total production for the month, 6739 ounces of gold."

CASSEL COAL.—Output for May 18,500 tons. Reduction in output owing to difficulties of railway transport.

CHIAPAS.—Copy of cable received from mine manager, June 4:—"During May the concentrating mill ran 11 days; 623 tons of ore were crushed, yielding 21 tons of concentrates. The Star Mill ran 16 days; we did not clean up; have stopped owing to want of water. Rainy season has commenced."

CONSOLIDATED GEM.—Manager cables:—"I have found good ore in new shaft. There is manifest improvement in the mine."

DAY DAWN BLOCK AND WYNDHAM.—Cablegram from the general manager at Charters Towers gives the result of the crushing for the fortnight ending May 30 as follows:—"Tons crushed, 1050; yield of gold, 1101 ounces; approximate value, £3850; fortnight's expenses, £1880."

DE LAMAR.—Captain Plummer cables with regard to the strike:—"Men have resumed work this morning."

DON PEDRO.—Produce for the month of May 253 ounces 12 dwts. from 462 tons = 11 dwts. per ton.

DURBAN-ROODEPORT.—The following results for May have been received by cable:—"Quartz milled 9045 tons, 70 stamps, 27 days, 4069 ounces; tailings treated 6355 tons, 27 days, 1450 ounces. Total 5519 ounces."

GREAT BOULDER PROPRIETARY.—Crushing returns for the fortnight ending May 23, as per cablegram received from the manager this date:—"At company's own battery, Great Boulder Mine, 367 tons of ore crushed, 1289 ounces gold; at company's battery, Lake View Mine, 10 stamps, 361 tons of ore crushed, 1143 ounces gold; at public leased battery, 200 tons of ore crushed, 358 ounces gold. Total tons of ore crushed, 928; total ounces of gold, 2790."

GEM OF CUE.—The following cable has been received from the manager:—"Reserves of ore between surface and water 20,000 tons. I estimate value of ore at 2 ounces per ton. Everything is ready for mill. We are now opening up as far as possible. The developments of the mine fully justify the expectations which have been formed."

GRASKOP.—Return from the mine for the month of May:—"Ore treated 417 tons, yielding 204 ounces; total yield January to May 31 1060 ounces."

GREAT REEF.—The following cable has been received from Coolgardie:—"Great Reef machinery in course of erection; are pushing the matter forward with all possible speed. Am leaving to-day for Webster's Find."—James Linn Sherlaw.

HAMPTON GOLD FIELDS.—Copy of cable received from Mr. J. M. Craze (manager), dated May 31:—"Hampton Gold fields and Swan Syndicate prospecting party pegged three more reefs Block 53."

HANNAN'S GOLDEN PEBBLES.—The following cablegram has been received from the manager, Mr. George Gray:—"Pebbles Mine is looking well and promises better; lode in the end is 22 feet wide and carries good gold."

HANNAN'S REWARD.—The following cables have been received from the manager: No. 1 cable:—"Passed through vein third level, vein is very narrow, not over 9 inches wide, free of water."—No. 2 cable:—"Third level, last 4 feet contains 10 per cent. pyrites, 2 ounces 5 dwts. per ton."

HARMONY GOLD AND LAND.—A cable has been received from our mining manager on the Murchison range to the effect that he has again struck the reef on the Farm Coblenz, in the lower adit, which he has been driving into the hill Mashambane, at a depth of 200 feet, thus exposing a body of ore in sight which he estimates at 100,000 tons, and averaging 10 dwts. gold per ton. He adds he has water in abundance for milling purposes, and that the cost of extraction will be very low.

HANNAN'S "SIR JOHN FORREST."—The following cable has been received from Mr. J. Woolcock:—"Since last report main shaft has been sunk 6 feet, total from surface 140 feet. The hardness of rock prevents rapid sinking. The eastern crosscut has been extended 9 feet, total from shaft 50 feet. At No. 2 shaft have driven 12 feet (south) on the lode, total 85 feet. The lode is opening up well. Have driven north 15 feet, where

the lode carries gold in paying quantities. Am sending specimens by next mail steamer. No. 3 shaft has been sunk 10 feet, total 66 feet."

HENRY NOURSE.—Result of operations for the month of May:—"Crushed 7160 tons; cyanide tons treated 4930, produced 6298 ounces."

HOLCOMB VALLEY.—The London office have received by cable on the first of the present month the following advice from their manager:—"111 cubic yards from main tunnel, \$105; 38 cubic yards crosscut, \$90. Sinking California drifting on Nelson."

HUAKAKI.—The directors have received the following telegram from the manager, viz.:—"Shaft is down 245 feet, No. 2 reef in the 220 and stopes above 200 opening very well. Stamps renovated and working well."

KAPANGA GOLD.—The directors have received the following telegram from the manager, viz.:—"Reefs show gold freely in the bottom of the shaft. Judging from the appearance of the reefs there is every reason to believe rich chutes of ore will be intersected after further development."

LISBON-BERLYN.—A cable has been received from the manager giving the following results for the month of May:—"Ore crushed, 2022 tons; ore treated by cyanide, 1732 tons; bullion received, 737 ounces."

MESQUITAL DEL ORO.—The following cablegram, giving the result of the May mill run, has been received from the mine:—"50 stamps ran 601 hours (25 days 1 hour) and crushed 2773 tons of ore, yielding 742 ounces of bullion; value about £2460. Also copper bars, value about £85."

MYSORE.—Telegram from the mine gives the return of gold for the month of May, as follows:—"5400 tons of quartz produced 7162 ounces of gold; 4880 tons of tailings produced 1350 ounces of gold; 1845 tons of tailings (cyanide process) produced 333 ounces of gold. Total production for the month 8845 ounces of gold."

MYSORE REEFS (Kangundy).—Cablegram from the mine, dated June 5, gives the May return of gold as follows:—"244 tons of ore crushed have yielded 102 ounces of retorted gold."

MONTANA.—By cablegram from the mine, the directors are informed that the total output for May was 6300 tons of ore which contained gold 2120 ounces; and silver, 8280 ounces. The estimated realisable value of the same is \$47,600.

MAORI (Menzies).—Copy of cable received from Mr. C. J. McMahon, the managing director in Australia:—"Satisfactorily arranged a constant supply of water; it has to be brought in pipes less than a mile, the cost of pipes will be £325 laid; shall I proceed. Shaft has reached a depth of 148 feet, average assay value of ore 4 ounces to the ton."

MARBELLA IRON ORE.—The directors have received the following telegram from the mines:—"Output of ore for May, 2336 tons."

MYSORE WEST AND MYSORE-WYNAAD CONSOLIDATED.—Tank block. The manager cables the result of crushings for the month of May as follows:—"After a mill run of 594 hours, 1400 tons, 706 ounces of gold."

MENZIES CONSOLIDATED.—Cable information is to hand from the manager at the mines to the following effect:—"Princess Eva shaft. Hoisting engine erected; shaft enlarged down to 86 feet; I (we) shall complete this during the next week; resume sinking below the 150 feet level. Princess Ada shaft. 100 feet deep; shall start at once to cut plat and crosscut east. Princess May shaft. Crosscut to the east 190 feet; no change to report here; poppet heads; hoisting engine being prepared; tank one-third completed.—St. Albans Group, west shaft, 178 feet (deep). No change to report here. North shaft, 100 feet (deep). Have started to crosscut to the west.—Battery. Tenders are being called for. Everything continues satisfactory.—Office note. The tank referred to is to have a capacity, when completed, of over 1,100,000 gallons."

MOUNT MAGNET.—The Fulton 20 stamp battery, engines, boilers, stores, &c., have been delivered at Cue, and the directors have completed the payment of the purchase money. Captain Richard Piper, the company's general manager, is taking active steps to transport the machinery and erect it at the company's mine.

MYALLS UNITED.—The 20 stamps running 10 days crushed 160 tons, yield of retorted gold 162 ounces; the clean up was from a fair average sample of stuff. The mine manager has already commenced to stop at the lowest level. In consequence of the heavy rains there is a good supply of water for 12 months. The main shaft has been sunk to a depth of 212 feet; the mine looks exceedingly well. It will undoubtedly become a very valuable property, and will not require any more money.

MYSORE GOLD.—The directors have received a telegram from the mine giving the return of gold for the month of May as follows:—"5400 tons of quartz produced 7162 ounces of gold; 4880 tons of tailings produced 1350 ounces of gold; 1845 tons of tailings (cyanide process) produced 333 ounces of gold; total production for the month, 8845 ounces of gold."

NEW CHIMES.—The return for April is as follows:—"40 stamps ran for 24 days, crushing 3824 tons of ore, yielding 1380 ounces gold, and 36 tons concentrates, yielding 175 ounces of gold. 2620 tons tailings yielded 208 ounces 10 dwts. gold."

NEW CHUM (Bendigo).—The following cable has been received from Mr. L. A. Samuels, the manager:—"Since last report main shaft has been sunk 14 feet, total from plat 57 feet and from surface 609 feet. Shall open out the reef in a fortnight (June 14)."

NEWHOUSE TUNNEL.—The following cable has been received from Denver:—"We have driven during the past month 165 feet."

NUNDYDROOG.—The directors have received the following cablegram from their superintendent, viz.:—"New 30 stamp mill, the result of the trial is very satisfactory. Milling delayed owing to cholera epidemic."

NUNDYDROOG.—The London office has received a telegram from the mine, giving the return of gold for the month of May as follows:—"2750 tons of quartz produced 3384 ounces of gold; 700 tons of tailings produced 187 ounces of gold; total production for the month, 3571 ounces of gold."

OOREGUM.—Telegram from the mine dated June 3 gives last month's return as follows:—"5012 tons of quartz produced 5051 ounces of gold, 5081 tons of tailings produced 978 ounces of gold. Total production for the month 6029 ounces of gold. The superintendent adds that the total quantity of stone passed through the mill was 5956 tons. Of this he estimates that 944 tons was country rock intermixed with quartz. He has been instructed that in future he must telegraph the gross tonnage stamped."

OMEAO GOLD MINES OF VICTORIA.—The following cablegram has been received from the manager of the mines:—"West vein assays from 2 to 8 ounces gold to the ton."

PICK O' THE FIELD (Bendigo).—Mr. L. A. Samuels, the company's manager, cables that full equipment of machinery has been purchased, and it is now in course of erection.

QUEEN CROSS REEF.—Cablegram from Charters Towers, dated May 30:—"Final clean up from concentrates 135 ounces, making a total of 632 tons crushed for a return of 1889 ounces of gold. Approximate value £6500."

SHEBA.—The following cablegram has been received from the general manager for the month of May:—"4200 tons

(2000 lbs.) of ore, 6820 ounces; 3350 tons (2000 lbs.) of tailings, 2000 ounces; 124 tons (2000 lbs.) of concentrates, 1204 ounces; total 10,024 ounces. The mill ran 29 days; no change in the character of the rock. Shut down for repairs, water race." The general manager reported, under May 9 (received June 1), that the repairs to the water race would not cause a delay of more than three days.

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chalmers:—"Produce 10 days, second division May, 9500 oits., equal to 1095 ounces troy, value £3681, yield per ton 5.3 oits. ('61 ounces troy.)"

SOUTH BENDIGO GOLD MINES.—Since last report main shaft has been sunk a further depth of 30 feet, total from plat 40 feet, and from surface 832 feet.

SOUTHERN NEW CHUM (Bendigo).—Since last report main shaft has been sunk 8 feet, total 200 feet. Have cut and timbered full sized plat at 160 feet. Also crosscut to lode, which is about 8 inches in present face.

STANHOPE.—Last month's crushing yielded 920 ounces.

TAMWORTH GOLD.—Cable message from managing director, Tamworth, New South Wales:—"10 stamps running two days, crushed 7 tons; yield, 32 ounces of gold."

VICTORIA GOLD MINING ASSOCIATION.—The following cablegram has been received at the London office:—"163 tons crushed, yielded 667 ounces gold."

WAIHI GRAND JUNCTION.—The manager cables, May 30:—"Grand Junction engine shaft is down 288 feet. Waihi West Prospecting shaft crosscut is driven 270 feet. Commenced to crosscut south."

WEST AUSTRALIAN GOLD CONCESSIONS.—The directors have received the following telegram from Coolgardie, dated May 27, and signed by Mr. A. Spencer Ellum, mining engineer, the company's representative in Australia, and by Mr. Thomas E. Hardy, the manager Hannan's Golden Dyke Mines (Limited):—"Golden Dyke confirm list of assays; see report dated; impossible to determine quantity of ore in sight until crosscut to west will be completed from the 100 feet level; anticipate large body of good ore. We have every confidence! We fully believe there is a splendid future for the property. The following is a list of the assays referred to:—Shaft 1, 3 ounces 14 dwts. 9 grains. Shaft 2, 104 ounces 11 dwts. 14 grains. Shaft 3, 4 ounces 16 dwts. 23 grains. Shaft 4, 1 ounce 2 dwts. 9 grains."

WAIHI GOLD.—Bullion return for 28 days ending May 30, £9200 from 2800 tons.

WORCESTER EXPLORATION AND GOLD.—Result of last month's crushing yielded 2444 ounces of gold.

WOODSTOCK (Transvaal).—Cable from Captain Roberts, June 3:—"Have struck reef at a depth of 400 feet.—The main tunnel. The width of reef is 25 feet, the matrix being composed of quartz and talc, and argentiferous galena. Pannings give encouraging results. Important discovery. Will send full particulars by next mail."

WAIHI CONSOLIDATED.—The following telegram has been received from the local committee in charge of the operations at the mines:—"The main shaft is down 70 feet; good progress is being made."

HANNAN'S NAPIER.—Cable, June 4:—"Proceeding to sink on a big auriferous formation which has been struck at a depth of 80 feet."

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

AFRICAN METALS COMPANY (LIMITED).

Extract from circular issued to the shareholders: In the circular letter of December 3 last notice was given to shareholders that the final call of 5s. per share would probably be made early in the present year. In view, however, of the disturbed condition of affairs in South Africa—where the principal business of the company has been so far—your directors considered it best to postpone this matter. It has now been decided to make this last call, and the shares will thereafter be fully paid up. Your directors are pleased to report that Dr. Robert Goering, one of the managing directors, has consented to take up his residence in London and give the details of the company's affairs his personal supervision. New offices have been secured at 3, Throgmorton-avenue, London, E.C., where all the business will be concentrated, and from which the operations of the company will be controlled after July 1. This arrangement, it is believed, will be of benefit to the company. A great deal of attention has been devoted by your directors to the interests of the shareholders since the formation of the company. A number of investments have been made and interests secured after careful personal investigation by the managing directors and the manager at Johannesburg, and it is anticipated that satisfactory results will in time be secured. The late troubles in South Africa have necessarily thrown much responsibility and work on the management, and limited for a time the field of operations; but it is to be hoped that with the clearing of the political horizon business affairs will become more promising.

THE NEW GUADALCAZAR QUICKSILVER MINES (LIMITED).

The following are extracts from a circular addressed to the shareholders:—"The accounts of the working of the mine, from the time it started and the furnace commenced burning ore on September 16 last, for the six months to March, having now come to hand, I am instructed by the directors to give you the following statement, which I trust will prove both interesting and satisfactory. The amount of ore treated to the end of March has been 3,796,957 lbs., yielding 69,681 lbs. of mercury. The sales of mercury to the same date amounted to £33,965, which at 26½d. exchange yielded £3750; leaving mercury on hand (a large portion of which has since been sold) of the value of £25,728, which, calculated at the same rate of exchange, is £2840; total, £6590. The cost of production, including all expenses in Mexico, chargeable to the revenue, according to the mine statements, has been £30,052, equal to £3318; leaving a profit in Mexico of £3272. Remittances from the mine to the extent of £1000 on account of this profit have already been received in London. The whole of the furnacing has been done by No. 3 furnace, and the results have been most satisfactory. The percentage of mercury recovered has been an average, during the six months, of 91 per cent., which shows that this furnace and the method of working it are most efficient. I am glad to be able to add that the registration of the company in Mexico has been duly completed in every respect, even including the payment of the solicitor's costs in Mexico in connection therewith, so that the company has its full legal status in that country. Any important information that may come from the mines will, at all times, be at once published."

—The books of the EAGLE'S NEST GOLD MINING COMPANY (LIMITED) will be closed on June 12, for settlement of list of shareholders for second call of 2s. 6d. per share, payable July 10.

The Anglo-West Australian Agency Limited, and the British Australian Mines Agency Limited, invite subscriptions for the undermentioned issue:—
25,000 Shares, being one-third of the whole Capital, have been set aside for the provision of Working Capital (5,000 of which will be held in reserve for future issue), and subscriptions for the balance of 20,000 having been already guaranteed, the Directors will proceed to Allotment at the closing of the Lists.
The Subscription List will open to-day (Saturday), 6th June 1896, and close on or before Tuesday, 9th June 1896, at 4 p.m. for both Town and Country.

HANNAN'S LAKE VIEW CENTRAL LIMITED.
Incorporated under the Companies Act, 1862 to 1890.

CAPITAL, £75,000,
In 75,000 Shares of £1 each, of which 25,000 are appropriated for Working Capital.

Share of 50,000 Shares of £1 each, payable as follows: 2s. 6d. per Share on Application, 5s. on Allotment, 2s. 6d. one month after Allotment, and the balance, as required, in calls not exceeding 5s., at intervals of not less than one month.

Directors.—Richard Irish Collier, Hawthorn, Bickley; Ernest Grant-Govan, Director Golden Horseshoe Gold Mining Company Limited; Edward Manby, Director Nitrate Railways Company Limited; Daniel Stephens, Prudential Buildings, Newcastle-on-Tyne; Alex. Matheson, Director Anglo-West Australian Agency Limited.
* Will join the Board after Allotment.

Bankers.—London: The City Bank Limited, Threadneedle Street, E.C.; West Australia: The Bank of Australasia, Perth and Kalgoorlie.
Solicitors.—Edwin Andrew & White, 27 Clements Lane, London, E.C.
Brokers.—E. B. Haselden & Co., 27 Throgmorton Street, London, E.C.; Stavacoe & Walton, Howarth's Buildings, Manchester; Hunter & Henderson, Mesley Street, Newcastle-on-Tyne.

Auditors.—Monkhouse, Goddard, Stoneham & Co., 28 & 29 St. Stephen's Lane, E.C.
Local Agents.—Fiedler & Wharton, Coolgardie, W.A.
Secretary and Offices.—H. Montgomerie, 231-233 Dashwood House, New Broad Street, London, E.C.

ABRIDGED PROSPECTUS.

This Company is formed to acquire the Mining Lease No. 282E, late 751, about 12 acres in extent, known as "Morning Star North," or "Nil Desperandum," centrally situated in Hannan's Field, Kalgoorlie, about 500 yards south of the celebrated Great Boulder and Lake View Mines.

The special features of this property according to the Reports are:—
Three parallel reefs traversing the property—
The Lake View Main Lode;
The second reef varying from 4 to 12 ft. in width, showing visible gold;
Another exceeding 6 ft. in width, also showing visible gold.

Close proximity to the best dividend-paying mines in the district—viz.: Great Boulder and Lake View.
Developments in various shafts, crosscuts, and costeans.
Heavy deposits of alluvial gold worked on the northern and southern boundaries.
Assays showing from 3 to 4 ounces of gold to the ton.
Mining timber plentiful within 3 miles, and water obtainable at 120 feet.

The terminus of the proposed Great Boulder Branch Railway will be situated within a few hundred yards.
The property has been favourably reported on by—
Robert Gibson, M.E., Consulting Engineer, Octagon Syndicate.
Brian Hooker, A.R.S.M., late Queensland Government Mineralogist, late Manager of the Lake View Gold Mine, now Manager of the North White Feather Consolidated Gold Mine.
J. H. Edols, Manager of Hannan's Proprietary Development Company Limited.
Dr. Chewings, Ph.D., F.G.S.

W. C. H. Lovely, M.A.I.M.E., and
H. Stanley Waugh, Representative at Hannan's of the British Australian Mines Agency Limited, extracts from whose reports are given below.

Mr. Gibson reports under date of 2nd March, 1896: "I am convinced that when the property is opened up that gold in payable quantities will be met with, the section being one of the best positioned claims on the Hannan's field. From my examination, I am confident that you have a continuation of the Lake View Lode traversing your property. It is a legitimate mining venture, and I can with every confidence recommend it as such, to the investing public."

Mr. Hooker states in his report, dated 29th February, 1896: "Situation.—The lease is situated south of the Great Boulder and Lake View mines, adjoining the Lake View Extended on the south. The area of the property is 12 acres."

"Prospect.—According to the latest survey, the Lake View lode certainly traverses the property, and I have every reason to believe that the plan is correct—I refer to the plan made by Mr. Rowe. The Lake View lode has now been proved for a considerable distance, and wherever the stone from it has been crushed it has been proved to be highly payable. From the position of the lease—and as I know the lie of the country so well, having been at one time manager of the Lake View Mine—I feel safe in forming the opinion that there is the lode in it."

Mr. Edols states in his report, dated March 2, 1896: "The formation of the country is similar to that found on the Lake View and also to that on the Lake View South leases, which latter is the nearest point to the Nil Desperandum lease at which the lode is being worked, there the lode is opened up for a long distance."

"The Lake View lode is one of the strongest and best defined in the district, and is already opened up for some thousands of feet on the line of strike."

"I cannot find any break in the country between the Lake View South and the Nil Desperandum lease, therefore, it is reasonable to suppose that the lode will be met with in the Nil Desperandum when search is made for it in a systematic manner."

"A bore hole has been put down on the north-western boundary in which water was found at a depth of 120 feet."

Dr. CHEWINGS, in a report dated 16th October 1895, on the Morning Star North (Nil Desperandum) and the two adjoining leases to the south, then known as the Morning Star leases, stated as follows: "The mine is situated 3½ miles south by east from Kalgoorlie (Hannan's) town on the East Coolgardie Goldfield, Western Australia. The Lake View and the Great Boulder Gold Mines lie to the north, and are distant only 400 to 500 yards. The position is excellent, and I have little doubt that some of the lodes therabouts converge and run through the property. The thousands of ounces of alluvial gold that have been found on and by the western boundaries of the Morning Star, shows beyond all question that a rich lode runs through that lease. The shafts now being sunk, and also the outcroppings of certain bands of schists, would lead one to the conclusion that the Lake View line of lode runs through the property."

"I consider this property one of the best shows near to and south of the well known Lake View and Great Boulder Mine, and the work done to the present confirms this opinion. It is excellently situated. The prospective value is great, and so far as I am able to judge, judicious and vigorous development will soon change the prospective into positive value."

Mr. LOVELY in his report, with plan attached, dated 1st September, 1895, stated: "Timber.—Mining Timber is plentiful within three miles of the mine."

"Water.—The lease is situated only three miles from the salt lakes, whence some of the mines are pumping their water, and I think a good supply will also be obtainable by sinking a shaft below water level, which would be reached at a depth of about 120 feet."

Mr. WAUGH states in his report, dated March 3, 1896: "There are four shafts, the deepest being about 50 feet deep. This is the most favourable and most valuable lease, both as regards position and intrinsic value, left unfloat into a company in this most favoured of

any part of the West Australian Gold Fields. Having for its near neighbour the Great Boulder Mine, and probably containing a continuation of its reef and similar rich formations, but better still, having almost to a certainty the Great Lode of the Lake View running into and through it.

In his report dated March 10 1896, Mr. Waugh stated: "The Nil Desperandum is more valuable every day. . . . I am sinking new shaft, which will go down 100 feet, and cross-cut east and west, not only finding Lake View Lode, but two other lodes, of which we have certain evidence in defined formations. Every one of any experience here agrees that you have one of the best properties ever floated in London from this district."

The consensus of these reports being, in the opinion of the directors, clear as to the great value of the property, they intend to push on with its development, and propose to erect, as soon as possible, a battery and all accessories for the requirements of the mine.

The following table shows the nominal capital of the most important mines in the Hannan's district, with the value of their capital at present prices:—

Mines adjacent to Hannan's Lake View Central.	Nominal Capital.	Nominal value of Shares, 2 June, 1896.	Present Price	Capitalised value at Present Price
Great Boulder	£175,000	£1	9½	1,575,000
Lake View	40,000	7/6	7½	800,000
Lake View South	150,000	£1	2½	375,000
Great Boulder Main Reef	120,000	10/-	1½	440,000
Hannan's Brown Hill	75,000	£1	6½	487,500
Hannan's Golden Treasure	200,000	£1	1½	325,000

The purchase consideration has been fixed by the Vendors, who are also the promoters, and who pay all expenses of and incident to the formation of the Company up to the first allotment, at £50,000, payable as to £20,000 in fully-paid Shares at par, and as to the balance of £30,000 in fully-paid Shares at par or cash, or partly in fully-paid Shares at par and partly in cash, at the option of the Directors, leaving £25,000 available for working capital, which is considered ample.

The following Contract has been entered into: (1) dated the 20th May, 1896, and made between The Anglo-West Australian Agency Limited, the Vendors, of the one part, and Herbert Cecil Grant for the Company of the other part.

The above Contract, with prints of the Memorandum and Articles of Association of the Company, and the original or copies of the Reports, may be inspected at the offices of the Solicitors of the Company.

Prospectuses and Forms of Application may be obtained from the Brokers, Solicitors, and of the Secretary at the Offices of the Company. London, June 5, 1896.

ANNAN'S LAKE VIEW CENTRAL LIMITED.
(This Form may be used.)

FORM OF APPLICATION FOR SHARES.

To the Directors of ANNAN'S LAKE VIEW CENTRAL LIMITED.]

Gentlemen,—Having paid to the City Bank Limited, Threadneedle Street, London, E.C., the sum of £....., being a deposit of 2s. 6d. per Share on.....Shares of £1 each in the above Company, I hereby request you to allot me that number of Shares, and I agree to accept the same, or any less number allotted to me, on the terms and conditions of the Prospectus, and subject to the provisions of the Memorandum and Articles of Association of the Company, and I authorise you to place my name on the Register of Members in respect of the Shares so allotted, and I undertake to pay the further instalments upon such allotted Shares as the same shall become due, and I agree to waive any further compliance with Section 38 of the Companies Act, 1867, than is contained in the said prospectus.

Signature

Name (in full)

Address

Profession or Occupation

Date1896.

METAL TRADE STATISTICS.

MAY, 1896.

COPPER.

(From Messrs. Henry R. Merton and Co.'s Circular for May, 1896).

	1895.				1896.			
	May 31	May 15	Apr. 30	1st May	May 31	May 15	Apr. 30	1st May
IN STOCK IN ENGLAND AND FRANCE:—								
Liverpool and Swansea, Chili Bars	26,481	27,731	28,265	38,814	31,464	35,823	35,823	35,823
Chili Ingots	2	2	195	672	805	78	78	78
Chili Ores and Regulus (fine)	1,535	1,931	1,965	4,433	5,186	3,862	3,862	3,862
Other Stuff (fine) & English Copper	939		993	4,398	5,046	6,026	6,026	6,026
IN STOCK IN AMERICA:—								
Rocks of fine Copper in Havre, Rouen, Bordeaux and Bapkirik	2,600	2,817	2,928	1,611	1,001	4,808	4,808	4,808
IN STOCK IN AUSTRALIA:—								
Chili Bars	31,751	32,788	34,246	49,961	43,780	46,481	46,481	46,481
Australis, by Mail and Cable, Fine Copper	1,900	1,109	1,100	1,100	703	800	800	800
Price of Chili Bars and G.M.B.'s per ton	£47 6 3	£46 5 0	£45 7 6	£43 0 0	£38 17 6	£43 2	£43 2	£43 2

COMPARATIVE STATEMENT.

	Stock in England and France and Australis	Price of G.M.B.	Supplies				Charters from Chili to Europe.	Shipments from Australia to London.	Total Supplies.	Total Deliveries.
			England and France.	Other European Ports.	Spain and Portugal (excluding Pyrites).	Other Count's.				
Month ending	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1st May 1896	36,901	£47 6 3	4,660	6,073	1,257	880	2,050	1,460	16,267	17,812
1st April 1896	39,980	44 17 6	4,173	5,102	1,110	3,532	2,050	1,460	17,428	18,880
1st March 1896	45,481	46 10 0	3,631	5,292	1,110	2,844	2,250	1,600	20,335	21,935
1st February 1896	46,128	47 12 6	4,377	5,348	933	612	1,700	700	22,441	24,141
1st January 1896	45,817	41 2 6	3,173	4,456	1,329	3,181	2,100	850	15,639	16,328
1st December 1895	45,817	41 2 6	2,807	4,919	2,036	2,401	1,800	1,460	14,613	15,227
1st November 1895	45,761	43 2 6	1,805	3,063	1,334	1,617	1,460	900	10,175	10,627
1st October 1895	50,383	45 2 6	923	2,450	1,386	2,960	2,300	700	11,119	12,579
1st September 1895	57,843	46 7 6	204	3,301	837	1,379	1,500	650	9,471	11,060
1st August 1895	55,432	47 0 0	590	3,303	812	2,282	1,800	750	10,237	12,622
1st July 1895	57,817	45 7 6	2,419	3,287	2,504	2,504	1,700	850	12,177	12,542
1st June 1895	56,162	42 7 6	2,128	3,427	1,775	6,674	2,100	850	19,949	20,978
Month ending	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1st May 1896	54,211	43 0 0	2,015	2,435	442	702	2,350	1,000	9,675	9,703
1st April 1896	54,239	40 17 6	1,003	4,069	2,319	1,611	2,700	700	12,068	12,112
1st March 1896	55,335	39 10 0	1,638	2,278	1,151	2,991	1,200	850	10,195	12,111
1st February 1896	55,190	39 0 0	2,450	1,020	1,542	1,619	1,500	650	8,711	8,369
1st January 1896	54,848	40 5 0	4,626	2,677	773	2,424	1,800	750	12,940	12,656
1st December 1895	54,664	41 5 0	3,639	2,564	1,638	2,366	2,300	650	11,745	11,376
1st November 1895	52,295	39 15 0	2,103	2,682	1,535	1,325	1,200	850	9,305	9,798
1st October 1895	52,758	40 15 0	2,689	1,331	1,334	1,095	1,800	850	9,672	9,818
1st September 1895	52,434	41 10 0	1,605	2,582	909	1,575	1,200	450	11,498	11,498
1st August 1895	52,407	40 7 6	3,628	1,494	3,972	2,000	550	14,422	13,343	13,343
1st July 1895	51,335	38 3 6	3,455	2,710	1,109	1,816	1,800	550	12,600	12,347
1st June 1895	50,072	38 5 0	2,758	4,150	858	3,522	2,300	850	14,306	11,814
Month ending	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1st May 1896	47,580	38 17 6	2,778	3,262	1,976	3,023	1,650	550	13,539	12,765
1st April 1896	46,806	39 17 6	3,259	3,226	1,057	2,977	1,650	600	13,669	13,460
1st March 1896	46,697	40 15 0	2,646	4,091	1,184	1,899	1,500	550	12,070	12,837
1st February 1896	47,364	41 0 0	3,158	2,392	647	764	1,900	500	9,501	9,389
1st January 1896	47,152	41 5 0	4,921	2,795	1,477	890	1,350	550	11,934	12,077
1st December 1895	47,295	42 15 0	3,848	4,445	1,687	852	2,700	500	14,032	13,564
1st November 1895	46,827	43 0 0	1,146	1,475	1,335	5,894	1,400	450	16,687	17,800
1st October 1895	46,040	42 2 6	7,197	4,446	999	3,023	2,200	1,000	19,024	18,968
1st September 1895	47,924	41 7 6	7,940	4,191	1,255	621	1,700	650	20,307	20,364
1st August 1895	47,961	41 12 6	4,274	4,815	1,535	645	1,800	400	13,307	13,729
1st July 1895	50,483	41 12 6	4,236	2,945	614	2,607	2,400	400	13,302	12,771
1st June 1895	49,955	43 10 0	1,914	3,195	1,958	2,548	1,850	550	11,015	12,011
Month ending	Tons.		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1st May 1896	52,415	39 0 0	5,721	25,392	22,050	6,650	169,187	171,158	171,158	171,158

TIN.

(From Messrs. A. Strauss and Co.'s Circular for May, 1896).

	April 30, 1895.	May 30, 1896.	May 31, 1895.	May 31, 1894.
	Tons.	Tons.	Tons.	Tons.
Straits and Australian spot	16,495	16,465	10,319	6,995
Ditto ditto landing	328	500	1,075	838
Straits, afloat	2,172	2,100	3,775	1,439
Australian, afloat	497	525	329	560
	19,492	19,590	15,493	9,843
Banco, on Warrants	1,660	2,411	1,743	1,703
Bullion, spot	1,820	1,655	1,671	1,601
Ditto afloat	1,195	461	953	700
Ditto spot in Holland	678	467	1,028	86
Ditto afloat to Continent	1,350	1,255	1,493	1,830
Stored secretly in Holland in 1894	1,787	87	2,250	—
	27,232	27,068	24,581	16,273
Total afloat for United States	1,960	2,930	1,565	1,932
Estimated stock in America	2,010	960	3,600	655
Total	31,192	30,956	29,746	18,853
Prices of Straits and Australian	£59 15 0	£60 10 0	£54 7 6	£71 10 0
Deliveries during the month in London	1,494	1,357	1,461	1,250
Ditto ditto Holland	1,027	763	583	511
	2,511	2,120	2,044	1,761

L. LePersonne and Co., London.

Telephone, No. 15,144. Telegraphic Address: "L-personne, London."
Cables, A.B.C., MACNEIL, MIREING.

**MINERAL, METAL, IRON AND TIN PLATE
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Contracts negotiated. Buying or Selling Agencies solicited.
Zinc, Lead, Silver Lead, and Copper Ores' offers specially invited.
EXPERIENCED AGENTS appointed in the COLONIES and FOREIGN
MARKETS where not represented.

C. PASS & SON (Limited), BRISTOL,

AND BUYERS OF

LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c.
and DROSS or ORES containing
TIN, COPPER, LEAD, AND ANTIMONY.

HENRY WIGGIN & CO. (Limited),
NICKEL AND COBALT REFINERS,
MAKERS OF BEST RED LEAD FOR FLINT GLASS
MANUFACTURERS,
BIRMINGHAM.

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**SHIPPING and FORWARDING AGENTS TO
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Zealand Ports.

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**LAMBERT'S WHARFAGE CO.,
PRINCE OF WALES DOCK, SWANSEA.**

Ores, Mattes, Regulus, and Bars received and prepared for market.
Copper, Lead, Tin, Spelter, and Pig Iron Received, Weighed, and
Sampled, and Warrants issued against same.

N.B.—Warrants are on Accepted List of London Metal Exchange.
Regular lines of steamers from America, Europe, &c.
Good prices can be obtained for low produce Copper Ores. Send
air samples of not less than half a pound.

**THE AUSTRALIAN GOLD RECOVERY
COMPANY (Limited).**

(MACARTHUR-FORREST PROCESS).

All information and terms regarding Plants and the Licensing of
this Process can be obtained on application to:

THE AUSTRALIAN GOLD RECOVERY CO. (Ltd.),
23, College Hill, London, E.C.

JAMES R. FOWLER, Esq., 14, King William Street
Adelaide; or

GORDON WILSON, Esq., The Australian Gold Recovery Com-
pany (Limited), Charters Towers, North Queensland.

AGENTS FOR THE CASSEL GOLD EXTRACTING COMPANY'S
MANUFACTURES OF HIGH GRADE CYANIDE.

THE BUTE WORKS SUPPLY COMPANY,

133M, BUTE DOCK, CARDIFF.

Telephone: No. 45 (Post Office and National).

Telegrams: Gething, Cardiff.

RAILS.—Bridge, Flange, Double Head, and Bull Head, with or
without fastenings.

SLIPERS.—Wood and Steel for all gauges.

EARTH WAGONS.—30-inch gauge, end and or side tipping,
£5 each, at Cardiff. Steel Wheels and Steel Axles.

PORTABLE RAILWAY.—£11 per 100 yards of railway
30 inch gauge, and £30 per 100 yards of railway 30 inch
(1-metre) gauge, both complete and ready for laying.

RAILWAY COAL WAGONS.—(New and Second-hand)
For Cash, Redemption Hire or Simple Hire. Quick delivery can
be made of perfectly new, and almost new latest regulations.

LOCOMOTIVES.—Six wheels coupled, by Manning, Wardle,
and Co., 12 inches by 17 inches, now near Cardiff; also six wheels
coupled, by Avonside Engine Company, 14 inches by 20 inches, now
at Cardiff; also six wheels coupled, by Sharp, Stewart, and Co.,
17 inches by 24 inches, now near Cardiff; all recently thoroughly
overhauled, and ready for instant work; cheap for cash, or three
years' redemption purchase.

Full particulars on application.

PLACER GOLD FIELDS OF ECUADOR.

PLAYA DE ORO MINING COMPANY.

AT the request of certain English stockholders, we have
arranged to keep in constant telegraphic communication
with the head office of this company in New York, and can furnish
full information and the latest reports regarding these mines, and,
if desired, can cable any inquiry for immediate reply.

MAGUIRE, BAUCUS, and STAPLETON,
Dashwood House (Ground Floor),
9, New Broad Street, London, E.C.

**COMPANIES AND LEGAL
ANNOUNCEMENTS.**

*. Advertisements are inserted in this column at the rate of
6d. per line, with a minimum charge of 7s. 6d.

**THE HAURAKI GOLD MINING COMPANY
(LIMITED).**

NOTICE IS HEREBY GIVEN, that a DIVIDEND of 1s. per
share, free of income tax, will be paid on and after the 24th
day of June, 1896.

Holders of Share Warrants must lodge Coupon Serial No. 5 at
the Offices of the Credit Lyonnais, Paris, or at the Company's Office,
97, Dashwood House, New Broad Street, London, E.C., three clear
days for examination.

W. J. LAVINGTON, Secretary.

London, 1st June, 1896.

MINE MANAGER.

WANTED, for a large Mine in Western Australia,
THOROUGHLY EXPERIENCED MANAGER. Highest
qualifications necessary. South African experience and knowledge
of Cyanide treatment considered an advantage. Liberal salary.
Address by letter to "MINING," care of J. W. VICKERS,
5, Nicholas Lane, E.C.

The Mining Journal,**RAILWAY AND COMMERCIAL GAZETTE:**

An Illustrated Record of Mining, Metallurgical, Railway,
Financial, Industrial, and Engineering Progress.

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SIXPENCE, is recognised throughout the World as being the oldest,
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interests which it represents. It circulates

ALL OVER THE WORLD.

Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical
Engineers, Manufacturers, &c., &c.

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LONDON: JUNE 6, 1896.

**TWENTY YEARS OF THE EXPLOSIVES
ACT.**

IT will be remembered that the Explosives Act came into
force on January 1, 1876: it has accordingly completed its
20th year of existence, and the report upon its working
during the last year of that period by the Government
Inspectors of Explosives now lies before us. The total number
of explosives now in the market is far greater than it was
when the Act was framed, and the labours of the Inspectors are
accordingly considerably greater. This is well shown by the
fact, among others, that there are now in Great Britain 134
licensed factories of explosives, as against 55 when the Act first
came into force. In those days the only explosive used in fire-
arms was gunpowder, the whole series of smokeless powders,
cordite, &c., having come into existence since then. Similarly
black powder, gunpowder to a very limited extent, and dynamite
were the only mine explosives known, blasting gelatines
and similar compounds, and the whole series of so-called safety
or flameless explosives having been invented since that time.
We find, on reference to the special appendix, that there are at
present no less than six "nitrate mixtures" and over sixty
"nitro compounds" authorised for manufacture in or impor-

tation into this country. The majority of these are explosives
that have been especially devised to meet the needs of coal
miners, and though not one of them even approaches perfection
as a safety explosive, there is, nevertheless, no doubt that they
are much safer in fiery or dry and dusty mines than is the more
generally-used black powder.

The whole of this report is interesting reading, and makes an
important chapter in the records of our national industries. As
regards, however, that particular branch of the subject of ex-
plosives with which our readers are chiefly concerned—namely,
the application of explosives to mining—we find but little in-
formation. The reason is simply that the majority of accidents
underground do not come under cognisance of the Inspector of
Explosives, because, according to the Act, no purely mining
accidents are to be reported to them unless it appears to the
Inspectors of Mines, within whose province such accidents come,
that they are of such a nature as to require special investigation
by the Inspectors of Explosives. The few accidents here re-
ported do not, therefore, call for much notice. They seem to be
of the usual type, the use of undue force in ramming ex-
plosives into bore holes being one of the most fruitful causes.
Many accidents have been traced to unexploded charges, or
portions of charges, and in this connection it is noticeable that
"mixed charges" are a great source of danger. These mixed
charges consist of part black powder and part gunpowder, fired
without a detonator, the function of the latter being assigned
to the explosion of the black powder. It seems, however, that
with such charges the complete explosion of the gunpowder is
doubtful, and the present report recommends that the use of
such mixed charges should be discontinued. We fancy that
most practical miners will concur in this recommendation.

It is, perhaps, to be regretted that the report on explosives
necessarily takes its present form, and that the Inspectors are all
military men. We venture to think, seeing how large a propor-
tion of explosives is consumed in blasting operations, that one,
at any rate, ought to be a mining engineer, thoroughly acquainted
with the conditions under which explosives have to be used
below ground. We are inclined to the opinion that there is very
much to be said for the Belgian arrangement; in Belgium a
special Inspector of Mines—of course, a trained mining engineer
—is detailed to investigate and report on all matters concerning
the employment of explosives in coal mines. The result of his
labours, in the shape of his report for 1894, has not
been long published, and forms a document of high
value to all coal miners, whilst its use to the country itself
may be appreciated by noting how the use of black powder
in fiery mines is gradually diminishing. Obviously, hard and fast
legislation on this point cannot be recommended, yet the exist-
ence of a central authority on the employment of explosives in
coal mines would certainly prove of value in this country, just as
much as it does in Belgium. We have never advocated too
much grand-motherly legislation, which hampers quite as much
as it protects, yet the value of Governmental experiments and
statistics cannot well be gainsaid. When we find a report like
the recent Report of the Proceedings of the Flameless Explosives
Committee of the North of England Institute, issued by a body
of mineowners at their own expense, and when we see work
that should by rights be done by a Government department,
delegated to the initiative of private individuals, we cannot but
feel that the Government is not doing its whole duty to the
miners of the country, as far as such experiments go. On the
other hand, as regards statistics of accidents, the high value of
which cannot well be disputed, we feel the inconvenience of
having what should be the work of one department done by two
independent ones. The province of each particular department,
too, is by no means clearly indicated. If, for instance, a coal
miner accidentally explodes a few dynamite cartridges, thereby
causing two or three deaths, this would probably (though we
are not sure on the point) constitute an accident to be referred
to the Inspectors of Explosives. If this accident took place in
a coal mine, and a gas or dust explosion resulted, the latter
accident, or the latter portion of the one accident rather, would
be investigated by the Inspectors of Mines. At the same time
we freely admit that a mining engineer would not necessarily
be the most suitable man to supervise the manufacture of fire-
works, for example. The subject is not a simple one, and as it
so often the case, it is much easier to criticise the existing state
of affairs than to suggest an unexceptional remedy. As long,
however, as it is possible to find in such an exhaustive report as
the one we are dealing with, the statement that "four-fifths
of the accidents causing death or personal injury occurred in
the use of explosives and under miscellaneous conditions to
which the controlling provisions of the Act do not apply," and
when we reflect that it is just this very class of accidents that
includes practically all those to which miners are liable to fall
victims, it cannot be held that the present state of affairs is
wholly satisfactory to the miner. We certainly think that if it
be possible, and we cannot see any really insuperable obstacle,
it might be a good plan to adopt the Belgian system, and to
create a special Inspector of Mine Explosives; even if this did
nothing else, it would relieve to some small extent our already
overworked Inspectors of Mines, and would enable all the in-
formation respecting explosives in mines to be concentrated in
one specific department.

WESTRALIAN GOLD MINING.

FOR some months past observers of the Mining Market have
held to a strong conviction that in the early future
Western Australia would to some extent displace South
Africa as a field for the capital of that increasingly large body
of persons who are prepared to enter upon gold mining as an
investment. This result was retarded by the general feeling of
distrust in Westralian values which was produced by the
reported collapse of the Londonderry venture. Since then,
however, many things have happened to withdraw investor
from their extensive dealings in the South African branch of

the mining market, and to reawaken their confidence in the mineral wealth of Western Australia. As a consequence, the long expected "boom" has come, but to assert that it has come to stay would be a bold and hazardous prediction. In these days of public confidence is so easily shaken, and events arise with such unexpectedness, that it is almost impossible to forecast even the immediate future. For instance, this is not the first boom in Western Australian mines, nor the second, and yet, as a result of the unexpected—which, we are told, always happens—they have gone quite out of favour, to once more attract attention when the cause of the depression was forgotten, or when some brilliant success has overshadowed some trifling failure. As we were the first to acquaint the world with the extraordinary richness of this colony, and the first, likewise, to pass a favourable opinion upon it, so are we eager to see it give strong evidence in support of our contentions. So far it has far exceeded them, and with that we are naturally extremely gratified. But we have never declared that every mine will be a great success. On the contrary, we have published frequent warnings that the failures will far outnumber the successes. This will be no fault of Western Australia; only the consequence of a little unscrupulousness on the part of the company promoter and the vendors, who are only too ready and willing to back him up. That the country is amazingly rich has long been placed beyond a doubt. Although the industry is only in its infancy, its output of the precious metal has been remarkable, in spite, too, it must be borne in mind, of most serious obstacles, which, happily, are being steadily removed. More and more proof is constantly coming to hand of the payable nature of the colony's auriferous deposits, and of the possibility of treating them at a big profit. In several of the gold mining districts the reefs are found to be more regular in character than was believed, and to increase in richness as they descend in depth. This is the natural history of every successful gold field. It is exactly what has happened in the Witwatersrand, and it is now being repeated in the case of the De Knap and the Klerksdorp districts. And, seeing that the gold output from Westralia has now reached a respectable total, even the most sceptical can no longer refuse to believe in the mineral value of the country. Another equally important influence towards the success of the Westralian gold mines is afforded by the progress which is being made in the economical treatment of the ore. The scarcity of water threatened at one time to interfere most gravely with the working of the Coolgardie and other gold fields. But of late so much has been done to develop dry crushing that this scarcity cannot be regarded as a serious obstacle to its successful exploitation. It has now been conclusively proved by experiments both in Australia and South Africa that the efficiency of the cyanide process is augmented by crushing the ore dry, and the appliances for dry crushing have been improved very considerably of late. The cyanide process is undoubtedly destined to achieve results in Westralia as remarkable as those which it has already obtained in South Africa. There is thus every prospect of a remunerative future for the mining investor in Westralia so long as he will be content to keep out of the clutches of the unscrupulous floater of bubble companies. It is, indeed, late in the day to detail the methods of this entrapper of the unwary. They are as old as mining, but apparently they always find victims. However, we may suggest to investors that any concern which gives but scanty particulars of its possessions, which "hacks" its claims with the report of some perfectly unqualified and self-constituted "expert," or which relies for tempting the public upon some colourable imitation in its title of the name of an already prosperous mine, ought to be religiously eschewed. There can be no question of the real mineral wealth of Westralia, and if investors will exercise ordinary prudence they ought to be well out of buying shares in its gold mines.

KRUGER'S CLEMENCY.

WHAT we have all along hinted as the likeliest event to happen has come to pass, and once more the heavy, ominous clouds which have so long overshadowed South Africa, and created in the hearts of thousands depression and foreboding, have rolled away, and a pleasant time, we hope is before us. In our leading articles dealing directly with the situation in the Transvaal and in those dealing with some of the leading companies, we took occasion to speak hopefully of the future, for we could never bring ourselves to the conviction that President Kruger would be guilty of the unwisdom of doing incalculable injury to the mining industry, as well as of fomenting discontent and anger, likely to seriously endanger the prosperity and peace of his Republic. Our estimate of his character has been supported by his acts, and this week we have learnt that 45 of the prisoners have been set at liberty, though their punishments are in abeyance, on their agreeing not to interfere again with the internal or outside politics of the Transvaal. We learn that, as a result of the Executive's decision, great enthusiasm was displayed in Johannesburg, and the President himself was vociferously cheered. Well, he deserves his triumph, for it has been won by the exercise of qualities which are lacking in the astutest statesman. His magnanimity has been lauded to the skies but we ourselves are not carried away by it. Magnanimity has not dictated these counsels, so much as shrewdness and foresight. Magnanimity is not narrow-minded, and we are afraid that the President has shown only too forcibly that he possesses this weakness. If he were magnanimous he would admit that the Uitlanders were oppressed by grievous burdens, that it was there which bred in them discontent, and that it was natural, if they could not obtain redress by peaceable means, that they would resort to force. Would magnanimity allow these grievances to remain? Would it turn the back to justice? Could it regard oppression unmoved? Yes; the President has exercised clemency, because severity would have stirred up a storm which might have ruined his country; but, magnanimity! Before we believe that he is at all actuated

by this virtue we must have more demonstrative evidence of it. We are afraid we shall have to exercise much patience. Not a word is said about the grievances. In fact, has he not declared they do not exist? Nevertheless, we have need to rejoice that he has been wise enough to see the consequences of clemency. By it he has saved the South African industry, and it is to be hoped that nothing will again occur to interrupt its progress. As a consequence of the good news from the Transvaal, quite a boom has set in in South African shares, and prices all round have gone up by leaps and bounds. This was to be expected, and we may now look forward, we think, to a repetition of the scenes which took place before the heavy slump last autumn. Yes; there is every appearance that a good future is awaiting the Kaffir market, because the future of South Africa itself shines more brightly than it has for many a day. It is to be hoped that better relations have now been established between Boer and Britisher; and, if so, the invasion of Dr. JAMESON has not resulted altogether in evil. Last night rumours were rife that the reform leaders had been released on parole, and that Mr. HAYS HAMMOND is sailing on the *Athenian* for Southampton en route for the United States. Furthermore, that a rumour prevails at Pretoria that the ultimate punishment of the leaders would be a fine of £10,000 each. On the eve of going to press these rumours were not confirmed. If they are not, however, true in substance, it is almost a certainty that within a short time we shall hear cheering news of a further act of clemency on the part of President KRUGER towards these gentlemen.

INDIAN MINES.

A COMMANDING feature of the Mining Market during the past two or three weeks has been the great activity displayed by Indians. The advice which we have ceaselessly and vigorously tendered to investors has been followed, with a corresponding benefit, for which they have every reason to feel gratified. The public are beginning to be deeply impressed with the richness of the Colar field in general, and the prospects of the leading Indian companies in particular. The strange thing is, as we have had reason to remark on more than one occasion of late, that investors have been so long in awaking to the fact that the Indian mines are not played out, but contain resources which have astonished, and which are destined yet to astonish, the sceptics. The rises which have taken place in the shares since the beginning of the year have been almost sensational, and, what is more, they have been justified by the position and the prospects of the individual companies. For instance, take the Mysore Company. How steadily the output has increased month by month, and what an improvement it has shown upon the average monthly outputs of last year. Far from being likely to show any falling off, the probability is that the output will go on increasing, especially considering the recent news to hand of the cutting of the lode in the 1360 feet level, which is 7 feet wide, assaying 4 ounces 10 dwts. to the ton. The prospects of the Champion Reef are no less bright, as the interim report of the directors, which we recently published, amply testifies. Here the returns have also increased, but not to so rapid an extent as the Mysore. In this mine the reserves of ore opened up are enormous. At the end of March the manager estimated them at 120,000 tons but since then they have been largely augmented. The manager said:—"As soon as the eastern part of the lode is met with in Carmichael's and Ribblesdale's shafts we shall be considerably adding to this amount." In confirmation of this, a telegram was received on the 18th ult. to the effect that the eastern part of the lode at the 740 feet level at Ribblesdale's shaft had been intersected, 4 feet wide, and assaying 1 ounce 2 dwts. of gold to the ton. During the six months covered by the report 100 stamps were in operation, and treated 29,010 tons of ore. But presently 140 stamps will be at work, which will certainly not be idle in face of the enormous reserves opened up. From these figures it will be seen that the Mysore and the Champion Reef are keen rivals, and no one would be bold enough to forecast which will win in the race for supremacy. The Ooregum Company, on the other hand, is lagging behind somewhat, though it is not doing at all badly. The output keeps very regular, no improvement being shown, but there is no telling what may happen any day. In contrast to this company the Nundydroog is showing up well, the output displaying a little, though a hopeful, improvement. Hitherto 40 stamps have been at work, but in a few weeks these will be increased to 50, and thus a corresponding increase in the returns may be expected. It is intended, in course of time, to augment the stamping power to 70, and as the reserves of ore are being steadily increased larger profits may be looked for. These four companies are the chief, but there are minor concerns, whose prospects are also the attention of the acute investor.

SOME OF THE WEEK'S MEETINGS.

THE past week has been prolific in the holding of the meetings of mining companies, some of the latter being concerns of great promise, others promising nothing but failure and disaster. With three or four of the meetings we deal elsewhere, and purpose in this article to comment more or less briefly upon one or two of the others. Shareholders cannot but rest satisfied with the result of the operations of the first year of the Gold Estates of Australia (Limited), which augur promisingly for the future, especially as West Australia is coming more and more in favour with the general public. The directors consider that the profits for the first five months of the present year will compare very favourably with the average of the past year's profits, and hence they have decided to pay on July 1 an interim dividend for the current half-year of 3s. per share on the fully-paid shares, and half that sum on the partly paid shares, being at the rate of 30 per cent. per annum. This company has been very suc-

cessful with its subsidiary companies, as will be readily perceived by the mere enumeration of them—viz.:—Menzies Gold Reefs; Menzies Crusoe Gold Claims; Menzies Consolidated Gold Mines, and the Menzies Alpha Leases. There are other mining claims which are being prospected and opened up, and when the developments have sufficiently proved their value, companies will be formed to acquire and work them, or they may be sold to companies owning the adjoining ground. In any case, in whatever manner they are disposed of, they are likely to yield large profits to the parent company. Of the Kinsella Gold Mines, another company which occupies an important position in the list of this week's meetings, it is possible to speak with every satisfaction. The board have in hand a sum of money which will enable them, as their able Chairman, Mr. NIGOR BROWN, put it, to "develop the mine thoroughly," so that the question of its production, about which there is cause for considerable hope, will be set at rest for good. Hitherto, it must be confessed, the mine has not had anything of a thorough trial, and unless from the commencement it was decided to carry the work of testing its resources to a proper conclusion, the shareholders should hardly have committed the shortsighted step of embarking in the undertaking. The vein is known to extend for a long distance under the company's ground, and the first thing will, in all probability, be to develop it, so far as practicable, throughout its entire length. Another highly favourable point in the outlook is the substantial diminution which is being made in the working costs, so that payable production on the part of the mine, such as there is reason to expect, is all that is needed to make a holding in the company a remunerative asset. At the present moment very little can be said as to the prospects of the Lake View and Boulder Junction Gold Mines. It was only in February last that the company was formed, the extent of the company's property, which is situated in the Kalgoorlie district, Western Australia, being 101 acres. As yet development has not proceeded with great vigour, but it is intended to make up for this by future energy. They have, at any rate, done well in securing the services of Mr. GEORGE GRAY to take charge of the property, and if any one can make the mine a success this gentleman is the one to achieve it. The directors are now awaiting the result of Mr. GRAY's examination of the mine, which, of course, is impatiently awaited by all interested in the company. In the meantime a favourable cablegram has been received by a firm connected with the vendors of the property, which states that the mine is looking well, that two separate reefs have been struck beside the Lake View showing gold, and that they expect to locate the Great Boulder lode by 80 feet further crosscutting. Another statutory meeting held this week was that of the Loma-gundi Exploration Company (Limited), a company which owns considerable property in Mashonaland. As the Chairman said, very little information has been published to throw light upon the value of the company's mines, beyond general admissions of the existence of numerous ancient workings. Therefore, it is not possible at the present moment to make any forecast as to what the future will bring forth. However, the company is likely to derive profits from the sale of properties to subsidiary companies. Already they have a sufficient number of claims to float half a dozen of these.

A COLORADO SYNDICATE.

AS we were the first to bring into public notice the auriferous wealth of Western Australia, British Columbia, New Zealand, and British Guiana, four gold fields which, of late, have come very prominently to the front, so were we the first to sound the praises of Cripple Creek, and to draw attention to its remarkable richness. As soon as we were convinced, from the most reliable evidence, that it was a marvellously rich field and that consequently there was a magnificent future before it, we established a correspondent there, a gentleman who has lived in the country for years, and than whom, probably, no one has a more intimate knowledge of the field. Several articles have already appeared from his pen, and from them our readers have learnt that Cripple Creek is a district destined to make history. Already Colorado has attracted the attention of the scientist, the expert, the capitalist, and the company promoter, and many companies have been floated upon the English market, with many more waiting to follow. Now, it is needless to point out that all these companies will not be successful. So long as a hole has been dug in the ground it is quite good enough for a promoter, especially if he can say it has been dug some miles in close proximity to some prosperous company. Upon one or two of these Cripple Creek companies, whose prospects appear to us favourable, we have had occasion to comment, and this week another opportunity has been afforded us by the holding of the statutory meeting of the Anglo-Colorado Exploration Syndicate. Of course, it is almost impossible to gather from statutory meetings what the future of a company is likely to be, as at that time work has only just commenced, and development is in nothing like a forward state. But this syndicate is not a gold mining company, we are informed, but a promoting company, its chief object being to explore for and develop gold mining claims and properties in Cripple Creek, in order to float subsidiary companies. For this reason we have a favourable opinion of the company's prospects, for such companies, if they happen to explore rich and favourite gold fields, generally meet with early and great success. There is every possibility that this syndicate will succeed in discovering rich properties in Cripple Creek, and that large profits will be earned as a result of their flotation. Already in the Rigi the directors seem to have acquired a property of excellent promise. It is surrounded by well known successful mines, but it does not follow from this alone that the Rigi will turn out a great success. So far, all that can be said is that indications are in its favour. The latest cable received from the mine states that in extending the drift Mr. MOORE

came on a streak of ore 4 inches wide, which assayed 23 ounces to the ton. This is certainly a high average, but, of course, it is not likely to be maintained. Besides, it is likely to give the impression that the mine is pockety. In order to test the value of the ore the directors sold the other day 33 tons, which averaged as high as £14 per ton. If this could be maintained it would mean great things. Taking all things into consideration, especially the wonderful auriferous wealth of the Cripple Creek gold field, we shall anxiously await the result of the operations of the Anglo-Colorado Exploration Syndicate.

AFTER considerable delay, owing to matters over which the board had no control, the shareholders in the St. Helen's Development Company have at last had an opportunity of hearing from the lips of Mr. Shaw an extended account as to the position and prospects of their undertaking. This company is one with which, from the commencement, we were favourably impressed, and of its future we have a high opinion, confident, as we are, that it is controlled by gentlemen who have the ability and energy to bring it to a successful issue. The main feature of the recent meeting was, of course, the speech of Mr. Shaw, which we think deserves careful attention and perusal, and more especially so since Mr. Shaw obviously has at heart the interests of the company, and is actuated by the sole ambition to make it the great success he is confident it will attain. To Mr. Shaw the shareholders have every reason to be grateful for the work he has accomplished on their behalf. In accordance with his advice, the board have made the selection of a group of claims in a district called the Sinanombi area, and a development company is to be formed for the purpose of further proving these claims. Already half the capital has been subscribed, and the remainder will be offered to the shareholders of the St. Helen's Development Syndicate, who, we think, may consider themselves very fortunate in having this first option, as there is every probability that the concern will turn out a great success. Indications, therefore, are favourable to the St. Helen's Development becoming a really prosperous concern under the able guidance of its directors and manager.

WHEN the proposal of the directors of the Exploration Company, the Transvaal and General Association, and the West Australian and General Association, for the amalgamation of these three most successful undertakings, is carefully considered from all points of view, it may fairly be asserted that the shareholders have shown the greatest discretion in giving the board their unanimous support in the matter. It is well known that the three companies have all along been managed by the same directorate, and these gentlemen, profiting by the experience thus gained, have every reason to believe that the result of the amalgamation will be eminently satisfactory to the proprietors. Another point in favour of the amalgamation is that one large company is in an infinitely stronger position to enter into and successfully carry out business transactions than three, comparatively speaking, small companies. That the interests of no one will suffer is beyond all doubt, in face of the assurance of the Chairman that not only had the board carefully considered the respective claims of the three companies, but the auditors had also been consulted, and had given their cordial support to the scheme. In regard to the prospects of the new company the outlook could hardly be more promising than it is at the present moment. Since the commencement of the present year large profits have been made on business which has matured, and there are abundant reasons for believing that the returns in the near future, and for some time to come, will be of an equally gratifying nature. One of the most important alterations is that in future each director will be compelled to take an interest, at the rate of 2½ per cent., in every new business proposed to be undertaken. In face of all these circumstances one may safely predict that the new company will start with wonderfully favourable prospects.

THE question of boring for water at Coolgardie is likely soon to enter upon another and more important stage. The arrangements for the work are now, we understand, nearing finality and the actual operations will shortly have started. Machinery is provided and buildings have been erected, so that the work, once started, may be carried to its conclusion with very little delay. The selection of a spot for boring has been a work of time and forethought, and after a comparison of the various sites suggested a point on the Southern Cross Road, some two miles from Coolgardie, was ultimately fixed upon. So far as it is possible to judge from this side of the water, the arrangements leave little to be desired. They have been consummated with care, and the works have been undertaken with a deliberation which promises favourably for their ultimate completion. Mr. Saunders, of the Public Works Department, has the enterprise in hand, and instructions have been given to sink, should this be found possible, to a depth of 3000 feet, the greater extent of which distance is expected to be granite. One shift of men will be employed at first, but ultimately there will be two, and according to estimates which have been formed it is hoped that each shift will go down 5 feet. All that this experimental venture means for Coolgardie is at once apparent. The great question as to whether water exists under the ground of the mining capital will be set at rest, and if the result be a favourable one, the prognostications of pessimists as to a waterless gold field will be finally exploded.

ONE effect of the great advancement recently made in West Australian mining is the enrichment of the Government Museum with some splendid ore specimens. These, in fact, are so numerous that the Curator confesses inability to deal with them owing to the want of space at his command, so that, for the present, their arrangement may be taken to be unsystematic and, from the geological point of view, faulty. Repeated gifts

from all parts of the colony have brought the exhibits up to a total which seems to show that the Museum must be adequately representative of the colony's mineral industry in all its branches. One collector alone—Mr. Vosper—handed over to the State guardianship a collection of nearly 500 minerals gathered from all districts in the colony. Many of the specimens contain sufficient gold to give them a distinct monetary value, and are certainly worth the pain of careful keeping. But beyond all mere considerations of value, the educational advantages of the collection are such as to make it a prime necessity that proper accommodation in the way of house room should be given them. Reports come to hand of large sums of governmental money being devoted to other purposes, and whatever the condition of the West Australian Budget provision should at least be made for the housing and maintenance of a collection of minerals that any country might be proud to possess. There is every prospect that in the early future the dimensions of the colonial collection will be further largely augmented, and unless it is to be allowed to get altogether beyond control the attention of the Government should not long be withheld for the matter.

THE amount of annuities and dividends accruing from holdings in the United Kingdom is shown by a return just presented to Parliament to have been £38,913,492 for the year 1895-4. Of this total, more than £15,000,000 was yielded by British securities, nearly £8,000,000 by Indian securities, about £10,500,000 by colonial, and just upon £5,500,000 by foreign securities. It will, perhaps, be thought that a good deal of income derived from foreign sources escapes taxation; but even if we take the total to be accurate, and the average rate of interest upon all such holdings to be as much as 4 per cent., it will be found that their capital value is £972,837,300. They yielded £1,125,894 of duty.

THE MINING MARKET.

FRIDAY EVENING.

A sensational change of front in the Kaffir Circus.—Westralians firm, in spite of a diversion of interest.—Miscellaneous Markets less active.

DURING the past week an almost electrical change has come over the Mining Market. The Kaffir Circus, in which, as we pointed out a week ago, prices were hardening up significantly, has suddenly become the centre of wild excitement. The oft quoted adage that a fortnight is a lifetime on the Stock Exchange has never received more striking exemplification. At the last Settlement we were chronicling the fact that capitalists who had long been takers in of African shares were delivering their stock with a view to transferring their funds to the daily increasing Westralian department. Such a move as this had been threatened for some time, but the actual accomplishment was deferred until the precise moment, which was worst for all parties concerned. The excuses put forward by the takers in that no activity was to be expected for some time to come, were made at precisely the wrong moment, and it is probably due as much to the scurry of operators for the rise to resume positions which had been precipitately abandoned, that a good part of the week's advance is due. As we anticipated, the race for the Derby and similar holiday functions have had a disturbing influence by taking many brokers and dealers, as well as a large slice of the public, away from the market. Under the circumstances, the extent of the week's changes is really remarkable, whilst there is every indication that we are by no means at the end of the movement. On Saturday an amount of business, quite unusual in recent times, took place in Kaffirs on the receipt of the first intimations—through the agency of Mr. Barnato, if report is to be believed—that the release of the Pretoria prisoners was only a matter of hours. The Barnato group gave a strong lead to Africans generally, and even if the short hours of business curtailed the rise in many cases, the market was put into a state of preparation for higher prices on Monday. Westralians commanded much attention and prices were all on the upward track. Buoyancy was maintained in New Zealand shares, and Indians were very firm. On Monday prices in the Kaffir market opened appreciably higher than Saturday's closings, and after good business throughout the day, activity was maintained in the Street, with the result that almost every active share in the list showed a gain on the day. The return of several jobbers who had crossed over temporarily to the Westralian side, together with the natural diversion of casual attention, had the effect of reducing the popularity of Kangaroos. After a strong opening, this market reacted on profit taking, though there was a rally before the close. New Zealanders were strong, and Indians continued their upward course. Tuesday was a comparatively dull day, and on the palpable falling off in buying orders, the bears resumed their attentions to Kaffirs in the Street with the effect of making the market look dull at the close. Australians were inclined to be depressed and prices were lower in many cases. Indians, too, eased off, but New Zealanders were strong and active. The attendance on Derby Day was, of course, small, but buying orders from the Cape supported Kaffirs, and Westralians remained steady. Indians recovered, and the New Zealand group was strong. On Thursday business proved more attractive than pleasure to many of the absentees of the preceding day, and as a consequence, prices were all good again. The market was well supported in all departments, the rumours as to the release of the leaders of the Johannesburg revolt taking a more definite form than hitherto. The bulls were most emphatic in their recognition of the practical termination of the political difficulty, and bought shares of all sorts indiscriminately. To-day the opening was strong, but towards noon the departure of leading members of the House for Epsom had a marked effect. Business became quiet, though quotations were fairly well maintained. Only two days remain to the present account, but the outlook is so cheerful that it seems safe to predict a large accession of business next week. In fact, we expect to read "markets booming" directly transactions for the new Settlement are commenced.

South Africans.

In many of the communications which have reached this country as to the release of the Pretoria prisoners, the name of Mr. Barney Barnato has been prominent. No one understands

better than this smart financier the advantages of broad-cast advertisement, and those whose memories have enabled them to read between the lines have had no difficulty in scenting a Barnato boom as being on the way. This view receives support in the cablegram published to-day by the *Standard and Digger's News* to the effect that there is a big amalgamation scheme in hand between the Barnato Bank and Consolidated Company and certain of the outcrop companies at present controlled in the same interest. It would be idle to debate the probabilities of such an event. With a man like Mr. Barnato anything in the company mongering line is possible. He has but to decide upon a line of action and his position is so autocratic that there is none to say him nay. We have before now entered our protest against any attempt at reconstructing the Barnato Bank until such time as its accounts have been published and full opportunity has been given for criticism of the details of its promotion. We do not say for one moment that a monster amalgamation is necessarily bad, but in the case of the Bank no measures of so sweeping a character ought to be carried through without ample opportunity for discussion. We have at the moment to deal merely with facts and there is no gainsaying the strength which has been displayed by the shares of the whole Barnato group. The bank shares have risen ½ to 2½, the Consols ½ to 3½, Buffelsdoorn ½ to 2½, Glencairn ½ to 3½, Langlaagte Royal ½ to 2½, New Primrose ½ to 6, and Ginsberg and George Goch ½ to 2½ and 2½ respectively. The biggest move of all, however, has been in Johannesburg Investments, which have put on over a point at 4½. The Robinson Group has been steadily supported, the chief gains being ½ in Randfontein at 3½, ½ in Block B at 2½, and ½ in Langlaagte at 6. The first news of the release of the prisoners was the signal for extensive buying of East Rands which had been well over 8, and close a full point to the good at 7½. St. Angelo has put on ½ at 4½, and Comet ½ at 3. A big move has occurred in Rand Mines, which close 3½ up at 31½. Rumour has it that a scheme for splitting the shares will shortly be introduced. Deep Levels generally are better, gains of ½ being marked in Goldenhuis Deep at 6½, and Nourse Deep at 4½. The Eckstein group reflects the improved outlook. Modders have risen ½ to 8½, Jubilee ½ to 9½, Ferreira 1 to 20½, Henry Nourse ½ to 7½, City and Suburban ½ to 5, Nigel 1 to 4, and Wemmers ½ to 9½. Simmer and Jack, which are still quoted in their undivided form are two points to the good at 22½. Throughout the active list gains are universal. Want of space prevents us from dealing with details, but amongst the most prominent changes are gains of 1½ in Knights at 7½, 1 in Durban Roodepoort at 7½, ½ in Bantje at 4½, ½ in Crown Reef at 12½, ½ in Kleinfontein at 3½, ½ in Meyer and Charlton at 6½, ½ in Sheba at 2½, ½ in Van Ryn at 5½, ½ in Robinson at 9½, and ½ in Wolhuter at 8½. Whilst all these gains are directly traceable to the improved prospects of the Mining Industry in view of President Kruger's belated clemency, Land and Finance shares have received indirect advantage. Chartered, in which presumably there was a bear account, jumped up to 4½ on Monday, and, after see-sawing round the figure, close at 3½, a gain of ½ on the week. Goldfields were as good as 13½ this morning, but are finally 1½ up at 13½. Goldfields Deep have put on 1½ at 11½, Gold Trusts 1½ at 8½, and Anglo-French Exploration which have been largely bought by the East Rand division, are nearly a point to the good at 5½. Rhodesia Exploring has gained 1½ at 7½, Oceana ½ at 1½, Willoughby Consols ½ at 2½, Exploring Land and Minerals ½ at 1½, Bechuanaulands ½ at 1½, African Estates ½ at 2½, and Austral Africans ½ at 1½. The Lydenburg Group is better all round, Spitzkopps being quoted at 22s. 6d., Balkis at 6s. 9d., Barretts at 13s. 6d., Graskops at 5s. 3d., and Lisbons at 6s. 9d. Diamond shares have been good, gains of ½ being marked in Jagers at 11, and De Beers at 30½.

West Australians.

Although the sensational recovery in Kaffirs has diverted public attention from Westralians, some substantial gains have to be chronicled. Great Boulders, which were no better than 9½ on Tuesday achieved a new record this afternoon, when they marked 10½. Hannan's Brownhills have been over 7 to-day, though they close slightly easier at 6½. Associated have been largely bought, in anticipation of crushing returns from the Lake View South, and after advancing to 3½ buyers earlier in the week, are finally ½ up at 2½. Hannan's Roward went to 5, and have reacted to 4½, which leaves them ½ down. The shares of Cressus South United, a property of which remarkably good accounts reach us are the turn better at 2½. Lady Lochs are ½ lower at 3½, and Lake Views are below the best at 7½. Changes in the Menzies Group are unimportant, and the White Feather Group is ½ to ½ lower all round. White Feathers and Golden Crown both at 2½, and Hit or Miss at 2½. West Australian Gold Fields have been in steady demand, and close ½ better at 10½—the record price. Hampton Plains have eased off to 5½, and Mainland Consols are appreciably below the best at 4½, which is still ½ better than last week's price. Share Corporation have put on ½ at 1½. London and Globe and Exploring Finance have lost ½ at 4½, whilst Colonial Finance are unchanged at 4½.

Miscellaneous.

Copper shares have continued their upward career. Tintos have risen ½ to 23, though this is not the best of them. Thariss are ½ higher at 5½, whilst Capes at 2½, and Copiapo at 2½, are each ½ better. New Zealand shares have been strong, especially Waihi, which stood at 7½ this morning, though a reaction to 7½ reduces their gain to ½. Kapangas have put on 1s. 9d. at 18s. 3d., Hauraki 1s. 3d. at 17s., and Waihi Silverton ½ at 4½. The deal in Gold Fields of New Zealand has made less noise and the shares are finally ½ up at 4½. A sensational movement leaves Taitapu at 2½, which is double the price ruling at the last Settlement. Charter Towers shares are neglected. Mount Lyells are quieter at 8½. Broken Hills have been good to-day, closing ½ up at 2½. Indians have reacted from the best, and are generally lower on balance with the exception of Coromandel, which close ½ up at 2½. Mysora at 7½, Nundydroog at 3½, and Ooregum at 3½ show losses of ½ to 1.

DURBAN ROODEPOORT.—Summary for month ending April 30 Block No. 1. 360 feet level, east drive, main reef, 46 feet. 6 inches. 360 feet level, west drive, main reef, 46 feet. 6 inches. Block No. 2. 7th level, south leader, east drive, 48 feet 6 inches. Below 7th level, south leader, west drive, 14 feet. 8th level, south leader, west drive, 74 feet. 8th level, south leader, sinking east winze, 57 feet. 8th level, south leader, crosscut, east winze, 4 feet 6 inches. 8th level, south leader, drive east of east winze, 91 feet 6 inches. Total, 289 feet 6 inches.

THE PULPID MINING COMPANY (LIMITED).—A further shipment of low quality copper ore selected from the old dumps, and ascertained to contain about 14 dwts. of gold, has been received, and has been sold at the very satisfactory price of 8s. 10½d. per unit for the copper and 80s. per ounce for the gold, with a small allowance to the smelters for cost of extraction of the gold. Another similar shipment is on the way.

THE EAST OPENS TO-DAY, SATURDAY, the 6th JUNE, at 10 a.m., and will CLOSE for London and Country on or before MONDAY, 8th JUNE, at 4 o'clock.

THE MAORILAND GOLD MINES (LIMITED).

HAURAKI DISTRICT, NEW ZEALAND.

Incorporated under the Companies' Acts, 1862 to 1890.

CAPITAL: £95,000.

In Shares of 2s. 6d. each.

WHICH ARE NOW OFFERED FOR SUBSCRIPTION.

Payable in 10 instalments, 1s. 4d. on Allotment.

Sufficient Capital having been guaranteed, the Directors will proceed to allotment immediately on the closing of the Lists.

Share Warrants will be issued on payment of the Stamp Duty and fee.

DIRECTORS.

A. A. TRAVERS, Esq., Director of the Komata Reefs Gold Mining Company, Limited.

C. HINGHAM, Esq., Director of the Komata Reefs Gold Mining Company, Limited.

CHAS. F. CUNNINGHAM, Esq., Director of the Komata Reefs Gold Mining Company, Limited.

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HANNAN'S NORTH CROCUS GOLD MINING COMPANY (LIMITED).

Incorporated under the Companies' Acts 1862 to 1893, whereby the liability of the Shareholders is limited to the amount of their Shares. Capital £10,000.

In Shares of £1 each. Issue of 50,000 shares. Payable as to 2s. per share on Application, 1s. on Allotment, and the balance one month thereafter.

DIRECTORS.

G. G. Ellington, Esq. (Director of the London and Western Australian Contract Company, Limited), Grena Lodge, Richmond, Surrey.

A. G. Shoolbred, Esq. (Director of Hannan's Development and Finance Corporation, Limited), 38, Lancaster Gate, London, W.

Albert King, Esq., 60, Aldermanbury, London, E.C., Colonial Merchant.

J. B. Guthrie, Esq. (Director of Hannan's Excelsior, Limited), West India House, Leadenhall Street, London, E.C.

E. H. Beaman, Esq. (Director of the Colonial Explorations, Limited), Chalsey, Southport.

LOCAL DIRECTOR IN COOLGARDIE.—G. P. Hurst, Esq. (Mineralogist; Director of Hannan's Sea Gold Mining Company, Limited, and Hannan's Croesus Gold Mining Company, Limited).

Head Office: Edinburgh and Branches in Scotland.

West Australia: Union Bank of Australia, Limited.

BROKER.—H. W. Wainman, Esq., 18, Austin Friars, London, E.C., and Stock Exchange.

SOLICITORS.

Messrs. Blachford, Riches, and Norton, 15, Walbrook, London, E.C.

Messrs. Parker and Parker, Perth, Western Australia.

AUDITORS.—Messrs. R. E. Emson and Co., 1, Gresham Buildings, London, E.C.

SECRETARY (pro tem.) AND OFFICES.—H. Munns, 5, Moorgate Street Buildings, London, E.C.

ABRIDGED PROSPECTUS.

This company has been formed to acquire, develop, and work the gold mining property, held under Lease, locally known as the "Croesus North,"

having an area of about 12 acres, and situated in the famous and highly auriferous district of Hannan's (Kalgoolie) Western Australia.

The mine has been reported upon by Captain Nathaniel Hurst, the Manager of the Croesus Gold Mining Company, and by Mr. G. P. Hurst, late Assistant Geologist to the Lake Mulligan Paleontological Expedition, who has recently returned to London from the Coolgardie Goldfield.

The property adjoins one of the richest and most extensively developed mines in the Kalgoolie district, namely, "Hannan's Croesus," which has shown exceedingly rich results from the surface down to the present depth. The North Croesus is surrounded by a number of well-known and successful ventures, including the Brown Hill, the True Blue, Croesus South United, Brownhill Consolidated, Brownhill Proprietary, Hannan's Proprietary, Croesus (No. 1) North, Hannan's Central, Neeldale Hill, Iron Monarch, Hannan's Parkings, and many others.

From the developments which have taken place all round the property, there is more than ample confirmation of the reports which are here submitted. On the Croesus (South) the shaft sunk on the northern side of the property, within a few hundred feet of the North Croesus, the Brownhill lode has been struck three times in a 150 feet shaft, the ore each time being richer than before. This conclusive proof of the Brownhill lode traversing northwards must likewise enhance the prospective value of the North Croesus.

In a report on an adjoining property Captain W. H. Matthews, the well-known Mining Manager, vouches for the accuracy of the statement that no less than 1000 ounces of gold was obtained, with the most primitive appliances, on the Hannan's Croesus, within about 75 feet of the southern boundary of the North Croesus lease.

The railway which has just been completed to Coolgardie is being continued to Kalgoolie, and will pass in close proximity to the mine. This will give the property a very great economical advantage in respect of freight charges, whilst the lodes being more or less huge bodies of ore, easily mined and payable throughout, their whole extent, must decrease very sensibly the cost of mining on this property.

The crushing which have quite recently taken place on the Coolgardie Field quite confirm the rich assay tests, which are characteristic of the lodes on this gold field. The Lake View return was 425 ounces of smelted gold from 125 tons; Barbark has returned 4 ounces per ton for 800 tons, the Australasian 8½ ounces per ton for 50 tons, whilst a trial crushing from the Little Wonder has gone 50 ounces of gold per ton.

The consideration to be paid for the property has been fixed at £25,000, payable as to £20,000 in cash, and £5,000 in cash or fully paid shares, the balance of the capital to be appropriated for working capital.

In the event of no allotment the full amount will be returned.

Prospectuses and forms of application can be obtained from the Bankers and Offices of the Company.

Applications for shares may be made in writing in the following manner:—To the Directors of Hannan's North Croesus Gold Mining Company (Limited).

Gentlemen, I hereby apply for shares in the above Company in accordance with the terms of the prospectus, and enclose herewith £..... being the deposit of 2s. per share.

Name: Address: Occupation: Date:

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THE METAL MARKETS.

THE METAL MARKET, LONDON, JUNE 5.

Copper.

THE speculative market opened quiet on Monday at 247 1/2s. 9d. a.c., and on the publication of the statistics for the end of May, showing a very slight increase for the past fortnight, the value eased off to 247 1/2s. 3d. a.c. and 247 1/2s. 3d. three months. The set-back was only temporary, however, the next day being ushered in with active buying at prices quickly rising to 247 1/2s. 9d. a.c., and 248 three months. On Wednesday, 247 1/2s. 9d. a.c. and 248 2s. 6d. respectively were paid. Thursday's market was comparatively dull, there being no active support, so that the sales made sufficed to depress the price to 247 1/2s. 3d. a.c., and 247 1/2s. 6d. three months, 247 1/2s. a.c. and 247 1/2s. 3d. being, however, subsequently realised. To-day we had a strong market at the opening, with business at 248 1/2s. a.c., and 247 1/2s. 9d. a.c., but values eased off to 247 1/2s. a.c. and 247 1/2s. 9d. three months, the two positions closing steady at 247 1/2s. 9d. and 248 respectively. New York reports continue firm, and business has taken place at good prices.

Tin.

As will be seen from the statistical figures published in another part of this issue, Stocks in and about Europe have undergone but slight change during the last few months. The week's business in Straits Tin has not greatly affected values; the opening was at 250 5s. a.c. and 250 15s., three months, but 250 17s. 6d. and 250 10s. were accepted on Tuesday. Then came a gradual improvement to 251 5s. 3d. a.c. and 250 18s. 3d. three months, these highest prices being recorded on Thursday. To-day's market was firmer at 250 15s. a.c. and 251 2s. 6d. three months, but closed easier again at 250 7s. 6d. and 250 18s. 9d. to 251 three months. Billiton declined from 11 3/4% to 35 cash, and closed at 35 1/4, with Banca at 37.

Pig Iron.

Scotland shipped last week about 6000 tons, or 2000 tons less than in the same week of last year. [The Glasgow market opened firm at 46s. 7d. a.c. Scotch, improved to 46s. 9d., and fell back to 46s. 8d., rallying then to 47s. 1d. a.c., but receding to 46s. 10d. The close is steady at 47s. 0d. sellers, with hematite at 47s. 7d. and Middleborough at 37s. 6d.]

Lead.

is firm, without special feature, and closes at 211 1s. 3d. soft foreign, and 211 5s. English.

Spelter.

is firm, and has further advanced on active business having been done up to the close of the week, whilst prompt staff commands a considerable premium. The close is at 218 5s. to 218 10s. ordinaries, and 218 10s. to 218 15s. specials.

Antimony.

No special feature to record. The market is steady at 230 to 230 10s.

Quicksilver.

has been reduced to 26 10s. firsts, and second close at 26 9s. 6d.

The following are to-night's (June 5) prices of metals:—

Copper.

Tough cake and ingot ... 51 10 0 ... 51 15 0

Best selected ... 52 0 0 ... 52 5 0

Electrolytic Copper ... 53 5 0 ... 54 15 0

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—A, Antimony; Ar, Arsenic; B, Bismuth; Br, Borax; C, Copper; D, Diamond; G, Gold; I, Iron; L, Lead; M, Manganese; N, Nitrate; P, Phosphate; Q, Quicksilver; R, Ruby; S, Silver; S-L, Silver-lead; Sul, Sulphur; T, Tin; and Z, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; 1 in the "Head Office" column of African Mines signifies that the address given is not that of the head office but of a sub, or transfer office; and 1, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

* The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

AFRICAN MINES.

Name.	Closing Price, June 5, 1896.	Closing Price, May 23, 1896.	Am't. of Share.	When last X'd and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Abbott's Con. Reefs	6/ 7/	6/ 7/	1 0	—	—	1 00	De Kaap	Broad Street Avenue
Alder Consolidated	1 1/2	1 1/2	1 0	—	—	1 00	—	1, Moorgate place.
African Estates	2 1/2	2 1/2	1 0	2/8 Oct. 1895	—	1 00	—	3, Cophall-buildings
Gold Revy	1 1/2	1 1/2	1 0	—	—	1 00	—	23, College Hill.
Aristander	1 1/2	1 1/2	1 0	—	—	1 00	—	33, College Hill
Alexandra Estate	1 1/2	1 1/2	1 0	—	—	1 00	—	34, Clement's lane
Anglo-French Exp.	5 1/2	5 1/2	5 0	7/ May 29 '96	—	5 00	—	16, George street
Matabeleland	2 1/2	2 1/2	1 0	—	—	1 00	—	3, Princes street
Appantoo	1 1/2	1 1/2	1 0	—	—	1 00	—	Winchester House.
Aurora	1 1/2	1 1/2	1 0	—	—	1 00	—	Dashwood House.
West United	1 1/2	1 1/2	1 0	—	—	1 00	—	8, Old Jewry.
Austral-African	1 1/2	1 1/2	1 0	—	—	1 00	—	7, Lothbury
Bakke Ererteling	2 1/2	2 1/2	1 0	—	—	1 00	—	Token Ho., Ophelia
Lang	6/ 7/	6/ 7/	1 0	—	—	1 00	—	85, Gracechurch-st.
Bantjes Consol.	4 1/2	4 1/2	1 0	1/ Feb. 13 '96	—	1 00	—	15, Geo. St., Mn Ho.
Barnato Bank	2 1/2	2 1/2	1 0	—	—	1 00	—	7, Lothbury
Consol	3 1/2	3 1/2	1 0	—	—	1 00	—	17, Basinghall-street
Barrett	13/6	13/6	1 0	—	—	1 00	—	19, St. Swithin's-lane
Bechuanaland Exp.	1 1/2	1 1/2	1 0	—	—	1 00	—	72, Basinghall street
1st ad g. & soc.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Big Golden Quarry	6/ 7/	6/ 7/	1 0	—	—	1 00	—	—
Block "B" Lang.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Bonanza	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Brit. S. A. Char.	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Buffelsdoorn	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Central	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Consolidated	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Cape Asbestos	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Copper	2 1/2	2 1/2	1 0	—	—	1 00	—	—
6% Pref.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Cassell Coal	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Cent. de Kaap	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Roop's Deep	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Champ d'Or	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Charterland G.F.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Chiu West	1 1/2	1 1/2	1 0	—	—	1 00	—	—
City and Sub. W.G.	4 1/2	4 1/2	1 0	—	—	1 00	—	—
Con. Bultfontein	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Con. Deep Levels	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Con. G. Fields S.A.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Do. 6% Pref.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Do. 5% Deben.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Crown Deep	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Meet	1 1/2	1 1/2	1 0	—	—	1 00	—	—
De Beers Consol.	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Do. 5% 1st Deb.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Do. 5% 2nd Deb.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Doornkop	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Driften	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Durban Road	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Deep	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Eastleigh	1 1/2	1 1/2	1 0	—	—	1 00	—	—
East Orion	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Exploration	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Exploring L.M.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Ferreira	2 1/2	2 1/2	1 0	—	—	1 00	—	—
French Rand	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Golden Deep	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Golden Est. G.	4 1/2	4 1/2	1 0	—	—	1 00	—	—
Main Reef	1 1/2	1 1/2	1 0	—	—	1 00	—	—
George Goch	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Ginsberg New G.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Glencairn	3 1/2	3 1/2	1 0	—	—	1 00	—	—
Gld. Fis. Deep	1 1/2	1 1/2	1 0	—	—	1 00	—	—
G.F. of Lydenburg	2 1/2	2 1/2	1 0	—	—	1 00	—	—
G.F. of Mashonaland	2 1/2	2 1/2	1 0	—	—	1 00	—	—
G.F. of T. de Pungo	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Grasskop	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Gt. Kat. Colliery	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Grigoland W.D.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Heidelberg Est. Ex.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Henderson's Trans	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Henry Nourse	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Hetty	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Joe's Reef	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Johannesburg Invt	4 1/2	4 1/2	1 0	—	—	1 00	—	—
Pioneer	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Jubilee	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Jumpers	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Deep	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Kimberley	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Rop	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Klerksdorp	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Knight's Deep	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Kofffontein	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Langenberg	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Langlaagte Est. G.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Royal	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Star	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Liebo-Berlyn	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Lon. Paris Plu. & S. A.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
London & S. A.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Lydenburg Est.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Lydenburg Estate	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Ld & Expi	2 1/2	2 1/2	1 0	—	—	1 00	—	—
M.G. Est.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Main Reef (New) G.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Maiman Gold Syn	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Marie Louise	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Marivale Nigel	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Mashon. Agency	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Cental	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Matabele G. R.Y.	4 1/2	4 1/2	1 0	—	—	1 00	—	—
May Con. (New) G.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Meyer & Char.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Mineva	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Mines Selection	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Modderfontein	2 1/2	2 1/2	1 0	—	—	1 00	—	—
"B" Extens.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Moyneux Consol.	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Moodies	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Moodie	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Namaqua	1 1/2	1 1/2	1 0	—	—	1 00	—	—
New African	4 1/2	4 1/2	1 0	—	—	1 00	—	—
Chimes	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Comet	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Cross	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Gordon	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Heriot	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Jagerst.	1 1/2	1 1/2	1 0	—	—	1 00	—	—
Kleinfontein	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Mides	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Primrose	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Rietfontein	2 1/2	2 1/2	1 0	—	—	1 00	—	—
S. Augustine	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Spee	2 1/2	2 1/2	1 0	—	—	1 00	—	—
Stegns Estate	2 1/2	2 1/2	1 0	—	—	1 00	—	—

AFRICAN MINES—(Continued).

Name.	Closing Price, May 29, 1896	Closing Price, May 22, 1896.	Am't. of Share	When last X'd and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Nigel.....G	3 1/2 4 1/2	2 3/4 3 1/4	1 0	—	1 0 0	160,000	Hand.....	86, Gresham Ho.
" Deep.....G	2 1/2 2 3/4	1 3/4 1 3/4	1 0	—	1 0 0	195,000	Heidelberg	8 Old Jewry.
North Randfontein	1 1/2 2 1/4	1 3/4 2	1 0	—	1 0 0	235,000	—	8, Princes street
Nourse Deep.....	4 1/2 5	3 1/2 4 1/2	1 0	—	1 0 0	375,000	Hand.....	120, Bishopsgate-st.
Oceana	1 1/2 1 3/4	1 1/2 1 3/4	1 0	2/- Nov. 23 '95	1 0 0	357,400	Wirdg Lyn	13, Austin Friars
" Developmat	3 1/2 4	2 1/2 3 1/2	1 0	—	1 0 0	50,000	Heidelberg.	"
" Minerals	2 1/2 3 1/2	1 3/4 2 1/4	1 0	—	1 0 1	5,000	"	"
Orange F.S.E.....D	3 1/2 3 3/4	2 3/4 3 1/2	1 0	2/6 Apr., 28, '96	1 0 0	284,000	Orange F.S.	10, Moorgate-street
Orion (New).....G	1 1/2 2	1 1/2 1 3/4	1 0	10% Aug. '95	1 0 0	36,000	Hand.....	8, Old Jewry.
Paarl Central.....G	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	1 0 0	138,750	Transvaal .	120, Bishopsgate-st.
Pard's Mozambq.	1 1/2 1 1/2	1 1/2 1 1/2	10/-	—	0 10 0	60,000	S.E. Africa	Broad St. Avenue.
Piggs Peak.....G	1 1/2 1 1/2	3/4 3/4	1 0	—	0 17 0	200,000	Swasiland.	8, Queen-street-pl.
Porges Randfontn.	1 1/2 1 1/2	1 1/2 1 1/2	1 0	2/ Feb. 13 '96	1 0 0	437,503	Hand.....	1, Bank Buildings
Potchefstroom.....	1 1/2 1 1/2	3/4 3/4	1 0	—	1 0 0	389,750	Potchefst.	19, Bury-st., 17
Princess Estate G	2 1/2 3	1 1/2 2 1/2	1 0	—	1 0 0	125,000	Hand.....	33, Cornhill, E.C.
Rand Central Ore	2 2 1/2	2 2 1/2	1 0	25 p.c Aug. '95	1 0 0	115,000	—	8, Princes-street, E
Randfontein.....G	3 1/2 3 1/2	2 1/2 3 1/2	1 0	—	1 0 0	2,000,000	Hand.....	1, Bank Buildings
Rand Mines.....G	3 1/2 3 1/2	2 1/2 2 1/2	1 0	—	1 0 0	332,708	Hand.....	120, Bishopsgate-st.
Rand-Rhodesia Es	1 1/2 1 1/2	1 1/2 1 1/2	1 0	10 p.c. Oct. '95	1 0 0	25,000	R&R Rhodesia	8, Old Jewry.
Rhodesia Es & Dr.	7 1/2 7 1/2	5 1/2 6 1/2	1 0	—	1 0 0	50,000	Mt & Mash'f	12, Old Jewry.
Robinson (S.A.) Bank	6 7	6 8 1/2	4 0	1/ Apr. 15, '96	4 0 0	730,000	—	8, Princes-street
" Deep.....	1 1/2 2	7 1/2 8 1/2	1 0	—	1 0 0	500,000	W'n R'f' End	120, Bishopsgate
" Diamond	9 1/2 9 1/2	8 1/2 9 1/2	1 0	—	1 0 0	350,000	Kaai Valley	8, Princes-street
" Gold.....	8 1/2 9 1/2	8 1/2 9 1/2	5 0	8/ Feb 13 '96	5 0 0	550,000	M. Hf. rand	28, Austin Friars
" Randfont.	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	1 0 0	517,000	Hand.....	9, Princes-street.
Rodepoort Deep	3 1/2 3 1/2	2 1/2 3 1/2	1 0	—	1 0 0	170,000	"	8, Old Jewry, E.C.
Rodepoort Un. G	5 1/2 5 1/2	5 1/2 5 1/2	1 0	5/ Feb 13 '96	1 0 0	130,000	Warford-court, 1	
Ross Deep.....	5 5 1/2	4 1/2 5 1/2	1 0	—	1 0 0	300,000	M. Hf. rand	30-31, S. Swith's lane
Rothery Block.....	8/ 10/-	8/ 10/-	1 0	—	—	—	—	55, Bishopsgate st.
St. Angelo	4 1/2 5	4 1/2 5	1 0	—	1 0 0	175,000	—	Winchester House
St. Helen's Devel.	3 1/2 3 1/2	2 1/2 2 1/2	1 0	—	1 0 0	47,550	9. Africa	13, S. Helen's Place
Sallybury New	4 1/2 4 1/2	3 1/2 3 1/2	1 0	—	1 0 0	99,000	Hand.....	95, Gresham Ho., E.C.
Sheba.....G	2 1/2 2 1/2	1 1/2 1 1/2	1 0	1/- Apr. 15 '96	1 0 0	850,000	Lydenburg	18, S. Helen's place
Simmer & Jack.....	22 23	19 1/2 20 1/2	1 0	2/ Aug 14 '95	1 0 0	250,000	Hand.....	8, Old Jewry
S.A. GoldTrust New	8 1/2 9	7 1/2 7 1/2	1 1/2	15 Feb 27 '96	1 0 0	250,000	S. Africa	"
South West Rand	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	1 0 0	158,000	—	Winchester House
Spitzkop (New) G	22 23 1/2	15 1/2 16 1/2	1 0	—	1 0 0	99,570	Lyde burg	15, Bishopsgate-st.
Stanhope.....G	1 1/2 1 1/2	1 1/2 1 1/2	1 0	2/- Oct 20 '95	1 0 0	34,000	Hand.....	95, Gresham Ho., E.C.
Sutherland N.G	4/ 5/-	5/ 6/-	1 0	—	1 0 0	220,000	Zoutpan bg	Dalwood Ho.
Tati Concessions ..	2 1/2 2 1/2	1 1/2 1 1/2	1 0	—	1 0 0	392,000	Hand.....	Gresham House
Trans. Col Trust.....	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	1 0 0	439,965	Rand.....	Broad-st., House, E
" Consolidated	2 1/2 2 1/2	1 1/2 1 1/2	1 0	1/- Apr. 29, '96	1 0 0	485,131	Transvaal	120, Bishopsgate-st.
" Est. & Dev.	1 1/2 1 1/2	3/4 1	1 0	—	1 0 0	428,600	—	10, New Broad-st. E
" Gen. Assoc.	1 1/2 1 1/2	2 1/2 2 1/2	1 0	10/- Mar. 12 '96	1 0 0	185,000	"	31, S. Swith's lane
" Gold Fields	3 1/2 3 1/2	3 1/2 3 1/2	1 0	8/- Apr. 15 '96	1 0 0	135,000	S. A. R.....	120, Bishopsgate-st.
" Land.....	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	1 0 0	79,935	Transvaal .	45, Abchurch Lane
Treasury.....G	3 1/2 3 1/2	3 1/2 3 1/2	1 0	12 1/2 % Sep. '91	1 0 0	135,000	Hand.....	Warford Court
United Exploratio.	1 1/2 1 1/2	3/4 1	1 0	—	1 0 0	250,000	—	120, Bishopsgate St.
Un. Ivy Reef.....G	1 1/2 1 1/2	3/4 1	1 0	2 1/2 Jan. '94	1 0 0	45,000	Transvaal .	110, Cannon-street
U. Langlaagte(S)G	1 1/2 1 1/2	3/4 1 1/2	1 0	—	1 0 0	146,000	Hand.....	85, Gresham Ho., E.C.
" Pioneer.....	3 1/2 3 1/2	3/4 1	1 0	—	1 0 0	75,000	De Kaap ..	16, S. Helen's Pl., E.C.
Van Ryn.....G	5 1/2 5 1/2	4 1/2 5	1 0	4/- Jan. 18 '96	1 0 0	160,000	Hand.....	18, St. Swith's lane
" North.....	3 1/2 3 1/2	3/4 1	1 0	—	1 0 0	116,091	—	"
" West.....	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	1 0 0	120,000	Hand.....	"
Venterakroon.....	3/4 1	3/4 1	—	—	1 0 0	125,000	Rooderand	8, Old Jewry
Vesta.....	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	1 0 0	130,000	Hand.....	Winchester House
Village Main Reef	8 1/2 8 1/2	8 1/2 8 1/2	1 0	—	1 0 0	177,000	"	8, Old Jewry.
Vogelstruis Estate	3 1/2 4	3 1/2 3 1/2	1 0	—	1 0 0	200,000	"	Winchester House.
" Cons. Deep ..	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	327,740	"	18, Geo. St. M'n. Ho.
Wassau.....G	3 1/2 3 1/2	3/4 3/4	1 0	—	1 0 0	190,000	Gold Coast	147, Cannon-street
Wemmer.....G	9 1/2 9 1/2	8 1/2 8 1/2	1 0	10/ Apr. 23, '96	1 0 0	55,000	Hand.....	19, Bury-street, 17
Western Nigel.....	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	1 0 0	207,000	Main Reef	Suffola House.
West Rand.....G	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	240,000	Hand.....	13, Geo. St. M'n. Ho.
Willoughby's Con.	2 2 1/2	1 1/2 1 1/2	1 0	—	1 0 0	70,000	Mashonsid	3, Cophthall-bldg.
Witwatersrand G	7 1/2 7 1/2	6 1/2 6 1/2	1 0	—	1 0 0	250,000	Hand.....	19, Bury-st., E.C.
Woluhuter.....G	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	1 0 0	130,000	"	Warford-court, 1
Worcester.....G	4 1/2 4 1/2	4 1/2 4 1/2	1 0	2/- Mar 12 '96	1 0 0	90,727	Hand.....	8, Old Jewry, 1
Worcester Explora.	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	65,000	Transvaal .	30-31, Clement's lane

AUSTRALIAN AND NEW ZEALAND MINES—(Continued)

Anglo-Chilian PLY " 8% RylistMB Argen. Concessions	104 11 110 113 1/2 2	104 11 110 113 1/2 2	10 0 100 0 2/	7/6 Feb. 27 '96 6% Jan. 2 '96	10 0 100 0 0 2 0	35,000 £260,000 150,000	Antofagst. S. Luis ...	123, Bishop- 3 & 5, Queen Str- W
Caratal.....G Caylloma.....N Coton.....G Colorado Mt.N	/9 1/3 3/4 1 -73 /9 1 3/4 2	1/ 1/8 % 1 -73 /9 1 3/4 2	2/8 2 0 5/ 5 0	— 1/- Apr. '94 2/8 Dec. 16, '95	0 2 6 2 0 0 0 4 0 5 0 0	1,330,003 125,000 200,000 35,000	Venezuela Peru Columbia Chili	57, Moorgate-st. E.O 52, Lendallth street 5, Cophall-bldg., E.O 12, King-st., Liverp'
Colombian Hy...G Coiplano.....C	3 3/4 2 3/4 3/4	3 3/4 2 3/4 3/4	2 0 2 0	1/2 May 28, '96	1 0 0 2 0 0	75,000 100,000	Columbia Chili	10, Blomfield-street Dashwood House, E.O
Darien "A".....G " "B".....G Don Pedro.....G	8 8 1/2 1 3/6 3/4 3/4	7 3/4 8 9 9 1/2 1/ 2/	1 0 1 0 1 0	1/2 May 28, '96 x.n.w Apr 29 '96	1 0 0 1 0 0 1 0 0	49,553 30,070 133,102	Columbia Brazil	Manchester. 24-5, Devonsh. Co E.O
El Callao.....G Frontino & B....G	3/4 3/4 1 1/4 1 1/4	3/4 3/4 1 1/4 1 1/4	5 0 5 0	9 1/2 Feb. '94 6d. Jan. 18 '94	5 0 0 1 0 0	257,000 129,662	Venezuela Columbia	8, Bishop-st. St., Wn 184, Gresham House
Glenrock.....G Gravel.....G Guadalupe.....G	1/9 2/3 7/8 1/6 3/6 5/-	1/9 2/3 7/8 1/6 3/6 5/	1 0 1 0 1 0	— — —	1 0 0 1 0 0 1 0 0	199,948 100,000 180,000	Arg. (A.I.) Columbia Honduras	3-5, Queen-street, E.O 10, Blomfield-street 14, Union ct. Old Brd
Julia Taital.....N	3/4 3/4	3/4 3/4	1 0	—	1 0 0	105,234	Nicaragua	139, Cannon-street.
Lagunas.....N Lautaro.....N Liverpool.....N Loma.....G London Mt.....N " Nit.(Prof.).....N	3 1/4 3 1/4 6 7 8 - 1 3/4 2 1/4 1 3/4 2 1/4 1 3/4 2 1/4	3 1/4 3 1/4 6 7 8 - 1 3/4 2 1/4 1 3/4 2 1/4 1 3/4 2 1/4	5 0 5 0 1 0 5 0 5 0 5 0	15 p.c. Dec. '94 5/- Dec. 30 '95 15/- May 14, '96 3 1/4 Nov. '95 5% Nov. 28 '95	5 0 0 5 0 0 1 0 0 5 0 0 5 0 0 5 0 0	120,003 10,000 22,000 300,000 10,000 42,000	Tarapaca Chili Columbia Chili	3, Gracechurch st; 70, " Liverpool. 5, Cophall-building. 9, Gracechurch-st "
Macate.....N	1/ 1/8	1/- 1/8	2/	—	0 2 0	200,000	Peru	11, Old Broad-st. E.O
New Tamarugal N " 8% Oun Pref " 6 p.c. Debs ..	3/4 3/4 35 35 85 85	3/4 3/4 35 35 85 85	1 10 100 0 100 0	1s. Dec. '94 8 p.c. Feb. '95 6 p.c. Feb. '96	1 10 0 1 10 0 100 0	137,000 130,300 £260,000	Tarapaca " " " "	50, Lime-street, E.O " " " "
Orita.....G Ouro Preto.....G	1/ 1/8	1/ 1/8	1 0 —	1/- April '99 1/- Feb. '99	1 0 0 1 0 0	30,000 80,000	Columbia Brazil	10, Blomfield-street 8, Queen-street-place
Pao. & Jampampa N Phoenix.....N	1 1/2 1 1/2 -79 1/-	1 1/2 1 1/2 79 1/-	5 0 10/-	4/- May, '95	5 0 0 0 8 0	72,000 400,000	Tarapaca S. Luis ...	1, Gracechurch-st. 3 & 5, Queen Street.
Quebrada.....C	1 1/2 3/4	1 1/2 3/4	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	8, Nicholas Lane.
Rosario.....N " (3% Deb.) " Hu'r De Serp	5 5 1/2 104 107 108 109	5 5 1/2 104 107 106 119	5 0 100 0 100 0	5/- Feb. 13 '98 5% Apr. 1 '96 5% Jan. 2 '96	5 0 0 100 0 100 0	120,000 £475,000 £200,000	Chili	7 1/2 Old Broad-stree " " " "
St. John del Rey G San Donato.....N " Jorge.....N " Pablo.....N " Sebastian.....N Santa Barbara.....N " Elena.....N " Rita.....N	20/ 21/ 3 1/4 3 1/4 5 1/2 5 1/2 2 1/2 2 1/2 1 1/2 1 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2	20/- 21/- 3 1/4 3 1/4 5 1/2 5 1/2 2 1/2 2 1/2 1 1/2 1 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2	1 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0	1/2 Nov 19 '95 2/6 May 24 '95 7/6 May 29 '96 5/- Oct. 30 '95 5/ May 24 '95 1/3 Dec. '86 5/- Nov. 15 '94 10/ May 18 '96	1 0 0 5 0 0 5 0 0 5 0 0 5 0 0 0 10 0 5 0 0 5 0 0	327,650 38,000 75,000 32,000 29,000 60,000 23,000 29,000	Brazil Chili " " " " " " Brazil Tarapaca Chili	Finlay Ho., Blm'd 12, King-st., Liverp 9, Gracechurch-st. " " " " Dashwood House E.O Liverpool 3, Gracechurch-st. Dashwood House, E.O
Tollma "A".....S " "B".....S	5 6 4 1/2 5 1/2	5 6 4 1/2 5 1/2	5 0 5 0	5/- Mar. 12 '98 5/- Mar 12 '96	5 0 0 5 0 0	14,000 9,000	" " "	10, Finlay-circus. "

BLACKETT'S CLAIM GOLD MINING COMPANY (LIMITED).

An adjourned general meeting of shareholders in the Blackett's Claim Gold Mining Company (Limited), was held yesterday, at Winchester House, E.C.—Sir W. R. Olivey presided, and formally moved the scheme of reconstruction embodied in the agreement which was read by the solicitor, and the resolution was seconded from the body of the hall.—The solicitor to the company stated that since the last meeting he had looked into the alternative of issuing debentures, proposed by Mr. Reed, and had come to the conclusion that, in the manner proposed, such a stop would be illegal, and this opinion had since been confirmed by counsel.—Mr. Reed said that he was not prepared to withstand this expression of opinion, and accordingly he would withdraw his own proposal in favour of that of the directors.—The motion was then put and carried unanimously, and a vote of thanks to the Chairman terminated the proceedings.

—The annual report of the directors of the BONNIE DUNDEE GOLD MINES (LIMITED) shows that the result of the year's working is a balance to the credit of the revenue account of £1349 1s. 9d., which, with the sum of £890 12s. 8d. brought forward, made a total of £2239 14s. 5d. Out of this the dividends on the preference shareholders for the year 1895 had been paid, leaving £1514 10s. 5d. to be carried forward. The developments on the Victory reef had been so far disappointing, but recent reports showed that some improvements were taking place. The old workings on the No. 1 shaft had been let on tribute, and produced for the company royalties amounting to £358 7s. 1d. The mining machinery was in good working order.

—In their report for the nine months ending December 31 last, the directors of the DAY DAWN BLOCK AND WYNDHAM GOLD MINING COMPANY state that the receipts amounted to £62,635 0s. 7d., and the expenditure to £34,745 11s. 4d., leaving a balance of £27,889 9s. 3d. Added to this was the £12,748 19s. 5d. brought forward from the last account. An interim dividend of 6d. per share was paid last November, leaving £27,553 8s. 8d. to the credit of the revenue on December 31. During the nine months under review 18,964 tons of quartz were crushed for a yield of 14,811 ounces of gold, the approximate value of which was put at £51,207. The Day Dawn reef had been developed satisfactorily, and it was expected that the opening up of the new reef, known as the Talisman, would result in a large addition of good ore to the company's reserves. The water supply had been greatly improved and would be the means of effecting a considerable saving in the future.

NEW ISSUES.

INVICTA GOLD MINES (LIMITED).

This is the name of a company formed to acquire and work the following claims:—Ah Chow, Jerome Stanley Evans, Schroder, Fun Yei, Ah Yow, Wing Kei, Goo Quong, San Qui, Perserance and Griffiths, together with extensive water rights, situated on the Wild Horse Creek, British Columbia. The prospectus states:—"The Wild Horse Creek is well known for the richness of its gold placers. In a work on 'British Columbia: Its Present Resources and Future Possibilities,' published in 1893 by direction of the Provincial Government, it is estimated that gold to the value of \$10,000,000 has been obtained therefrom." The capital of the company is £100,000, of which £15,000 has been set aside for working capital.

HANNAN'S LAKE VIEW CENTRAL (LIMITED).

Our advertising columns contain the prospectus of this company, which has been formed to acquire the mining lease No. 282x, late 751, about 12 acres in extent, known as Morning Star North, or Nil Desperandum, centrally situated in Hannan's Field, Kalgurli, about 500 yards south of the celebrated Great Boulder and Lake View mines. The special features of this property, according to the reports, are:—Three parallel reefs traversing the property—the Lake View main lode; the second reef varying from 4 to 12 feet in width, showing visible gold; another exceeding 6 feet in width, also showing visible gold. Close proximity to the best dividend-paying mines in the district—viz., Great Boulder and Lake View. Developments in various shafts, crosscuts, and costens. Heavy deposits of alluvial gold worked on the northern and southern boundaries. Assays showing from 8 to 4 ounces of gold to the ton. Mining timber plentiful within 3 miles, and water obtainable at 120 feet. The terminus of the proposed Great Boulder branch railway will be situated within a few hundred yards. The property has been favourably reported on by several of the eminent mining experts. The purchase consideration has been fixed at £50,000, payable as to £20,000 in fully-paid shares at par, and as to the balance of £30,000 in fully-paid shares at par or cash, or partly in fully-paid shares at par and partly in cash, at the option of the directors, leaving £25,000 available for working capital, which is considered ample.

THE MAORILAND GOLD MINES (LIMITED).

This company has been formed, with a capital of £95,000, for the purpose of acquiring and developing, according to the prospectus, an extensive property in the Kuaotunu Gold Field, in the mining district of Hauraki, New Zealand. The area of the property is 100 acres, and the claim embodies the old claims of Maeri Pah, Hinemoa, Te Aroha, Black Jack, Kohineer, Jump, and Blackstone, and adjoins the Maori Dream, and Kuaotunu, and is in close proximity to the Aorere and Try Fluke. The property has been favourably reported on by Captain W. H. Argall, manager of the Kapanga mines, and Mr. P. C. Cheal, mining engineer. The purchase money has been fixed at £70,000, £20,000 in cash, and the rest in shares.

HANNAN'S NORTH CRESCUS GOLD MINING COMPANY (LIMITED).

This company has been formed, with a capital of £110,000, in shares of £1 each, to acquire, develop, and work the gold mining property held under lease, locally known as the Crescus North, having an area of about 12 acres, and situate in the famous and highly auriferous district of Hannan's (Kalgurli), Western Australia. The directors consider that they have been fortunate in securing this lease, seeing that it is situate about 90 chains north-west of the celebrated Brownhill and True Blue Mines. The mine has been reported upon by Captain Nathaniel Hawke, the manager of the Crescus Gold Mining Company, and Mr. G. P. Hurst, late assistant geologist to the Lake Mulligan Paleontological Expedition, who has recently returned to London from the Coolgardie gold field. The prospectus says:—"A careful examination of the Brownhill, True Blue, and Crescus lodes show that they represent the central fissure of the great gold-bearing formation of Hannan's, which consists of reefs running parallel to each other, and in all forming a wide auriferous belt of country, which is now being worked for miles in length."

REPORTS FROM THE MINES.

BRITISH MINES.

DEVON GREAT CONSOLS.—June 4: Watson's engine shaft. In the 147 level east the lode is 4 feet wide, yielding 4 tons of copper and muddle ore per fathom. The driving of the No. 4 fathom level east has been resumed for further proof, the lode in that direction. We shall sample at Morwellham on Friday the 5th inst. 251 tons of copper ore for sale, one the 13th at Redruth. After the longest continuance of dry weather known in Devonshire for a great number of years a change has taken place, and rain has been falling for some little time to-day.

WEARDALE LEAD.—Report on Weardale Company's mines for the week ending May 30:—Groverake. 60 fathom level east unchanged. End worth 6 cwt. per fathom. Groverake Tributary for the week 15 blngs.—Boltbarn. Stopes in north flats from Watts' level worth 25, 35, 25, and 16 cwt. per fathom. Stopes in south flats worth 5, 35, 15, 25, 25, 16, 30, and 14 cwt. per fathom. Vein stopes worth 14 and 10 cwt. per fathom. Proving north flat below level the ground is rather improved—worth 30 cwt. per fathom.—Greenlaw. Rees's Drift. Vein 3½ feet wide of spar mixed with ore, and worth 12 cwt. per fathom. Stopes worth 15 and 16 cwt. per fathom. Slaty Hazel Drift no change. Stopes worth 12 cwt. per fathom.—Lowe's Drift. Vein still a little divided. South part 4 feet wide of spar, with a little ore, worth 8 cwt. per fathom. Stopes worth 16 and 12 cwt. per fathom. Quarry level unchanged. End worth 8 cwt. per fathom. Sedling. Driving 64 level east. Strong vein composed of spar and rider, with a little ore. Stopes above 64 level east worth 12 and 12 cwt. per fathom. Driving west to prove north branch above 56 level. Vein 2½ feet wide of good spar mixed with a little ore. Stopes above 56 level worth 14, 16, 11, 12, and 12 cwt. per fathom. Ore raised for the week 54 tons; ore dressed for the week 54 tons; ore and slag smelted 77 tons, producing 42 tons of pig lead.

WHEAL METAL AND FLOW (LIMITED).—Progress report, June 1:—Wheal Metal. Since our last report we have continued the drive westward on the lode at Watson's shaft, 27 fathoms below adit, and we are now in 172 feet from the shaft. (In our last report 180 feet should have been 150 feet.) The lode is yielding a fair quantity of low grade stuff, and keeps four stamps going most of the time. At the south shaft we have put in a ladder way, and are breaking ground for another battery of four stamps from two places on the south lode. The rich leader continues to show in the western slope, but, as a whole, the stuff is poor. The flow is now nearly dry, there having been no rain of importance since Christmas, but we are working a little sand by means of the water raised from the mine at Watson's shaft.—Bleu Bridge. Here we are getting a little tin, but we are greatly in need of water.—Wheal Fortune. The stone breaker and petroleum engine have been erected, and we are now completing the engine house and elevator. A little good stuff is being raised from the quarry, but shortness of water is a great drawback at present.—Trellick. Here also we are much in want of water, but we are renewing the little stamp battery to take advantage of it when it comes. All our machinery is in excellent order, and we expect to considerably increase our returns as soon as we have rain.

WEST KITTY.—June 3: The rise in back of the 84 fathom level west of Reynolds' shaft, the lode is worth 23 per fathom. The 71 fathom level driving east, Reynolds' shaft, the lode is about 2 feet wide, and worth 27 per fathom. The 50 fathom level driving west of Reynolds' shaft north of slide, the lode is 3 feet wide, and worth 27 per fathom. The shaftmen are making fair progress in sinking Thomas' shaft. The 60 fathom level driving east of Thomas' shaft, the lode is worth 23 per fathom. The stopes and tribute pitches continue to yield the usual quantity of tin.—(Signed) John Williams, Joel Hooper.

COLONIAL, INDIAN, AND FOREIGN MINES.

BAYLEY'S NO. 2 SOUTH.—The following fortnightly report, dated April 29, has been received from the mines manager, Mr. W. H. Vivian: At the 100 feet level in the south drive 9 feet has been driven from the crosscut, making a total of 9 feet. The reef is 1 foot wide, and carries very little gold. In the north drive 7 feet has been driven, making the total distance north of No. 1 shaft 7 feet. The reef has reappeared, and is 16 inches wide, carrying about ½ ounce of gold per ton. The winze in the 100 feet level is 5 feet deep. Reef 15 inches wide. Worth about 1 ounce of gold per ton. The water shaft is still in the course of being timbered. Inflow of water slightly less than formerly.

BRITISH BROKEN HILL.—Mining manager's report for week ending April 22: Main workings, Blackwood shaft. There is no material change in the faces of the stopes in the east vein, 104 tons carbonates were mined, assaying 42 per cent. lead and 6 ounces silver per ton, and 100½ tons, averaging 42 per cent. lead and 54 ounces silver to the ton.—Howell shaft. The work of putting in leading sets on 10th and 11th floors of far north stopes has been continued during the week, 63 tons were broken, assaying 40 per cent. lead and 2 ounces silver.—Surface works, jig plant. Portion of heavy gear for circulating pumps, which arrived at end of last week, are being placed in position. Good progress made in fixing jigger gear. All other jobs being pushed on with all possible dispatch. Fair progress made in cleaning out and building embankment for slime dam at bottom of mill.—Electric light. Flooring of engine room has been finished and windows, &c., almost completed. The electrician from Adelaide arrived during the week, and a start has been made to put the plant in working order.—Rainfall. From the heavy showers of rain that fell during the week, our reservoir on the east side of hill benefited to some extent, being now about three quarters full.—Assays for the week. Carbonates lead from 12 to 57 per cent.; silver from 8 to 13½ ounces per ton.

EMERALD (REWARD).—Report No. 18:—I beg to forward you my usual weekly reports upon the exploration points throughout this mine.—Main shaft. I purpose securing this shaft with timber, and shall begin the work on Wednesday, and when finished I shall again commence sinking with four men to the 50 feet level. In consequence of water I shall under the necessity of taking away the mill tailings steam pump and put it into the main shaft to pump the water therefrom. This will no doubt inconvenience us a little, as in the case of milling I shall require to put on an extra man to keep the tailings race clear. If I find it impossible to run the milling without the pump in question, I shall be under the necessity of purchasing another from Adelaide of same size and dimensions, but the necessity must be apparent first before I go to this expense.—Water shaft (No. 1 shaft). The vein at the back of the water level is being worked by two men, and will average about 8 inches wide, producing stones in which you can see gold freely.—Shaft No. 1 con., point 3. The four men employed at this point are driving east upon the course of the lode, which is composed chiefly of quartz, and is about 2 feet 6 inches to 3 feet wide at times. But, unfortunately, it is of too low quality to put through the mill. My object in driving in this direction is to meet with a cross lode which is apparent on the surface, and may meet with a productive point, as we have already met with one just behind this end where I am raising with two of the four men named above. The branch is only about from 8 inches to 10 inches wide, but is producing a little gold for about 12 feet in length, and has a bearing almost north and south. As long as this produces quartz for the mill in payable quantities, I intend to raise from this point and stopes away the ground up to the grass roots. I may say in passing this vein continues to the bottom of the level just as good, if not better, than that in the back of the level. But I cannot go below the level, as it is the water line, but am under the impression (I do not say I am correct) that as soon as we sink the main shaft below the water line the water, I think, will go down at this point, being drained therefrom by the deeper sinking of the main shaft. Should this prove correct, I shall immediately commence to sink in the bottom of this level as far as the water will permit.—Shamrock shaft No. 2. The two contractors driving east and west at this point are doing good work and making fair wages, the ground being in their favour for driving. The lode in the east end is about 14 inches wide, but is poor. That in the west end is about 7 inches wide, which is also poor, or too low to mill with profit.—(Signed) James Penberthy, manager.

FRENCH RAND.—Report for April: The following development has been done during April. Von Hesser vertical shaft sunk 59 to 407 feet, new vertical shaft 27 to 39 feet, No. 1 incline 45 to 403 feet, No. 2 incline 41 to 438 feet.—Drives. Midas E on main reef 33 feet, Midas crosscut 41 feet, incline shaft 2 on south leader west 40 feet. The south leader was cut in No. 2 incline shaft E towards end of April. It is 12 inches thick, assays 3 ounces 2 dwts. 10 grains and 4 ounces. The leader continues to look well. Kaffir labour is at present plentiful. Surface work continues satisfactorily. The general meeting of shareholders has been called for Wednesday, July 8, at 4 p.m., in the Board Room, City Chambers, Johannesburg. Also a special general meeting of shareholders, same date and place, immediately after the termination of the

ordinary general meeting, to consider, and if thought fit, to substitute in Clause 123 of the Company's Articles of Association "five years," instead of the words "twelve months," as heretofore. The transfer register closes here and in London from May 15 to 24, both inclusive.

TRUE BLUE.—Mining manager's report to April 28: No. 1 main shaft. The cutting of the station at No. 1 level is now complete, and the shaft sunk 6 feet below the plat. North-east crosscut has been extended 10½ feet in a good class of country, total distance driven from shaft 168½ inches. Contract for extending this crosscut has been let, and contractors at commencement cut through lode 1 foot in thickness, assaying 1 ounce 0 dwts. 21 grains. South drive No. 1 lode has been extended 8 feet. Lode 10 inches in thickness assaying 1 dwt. 7 grains. South-west crosscut has been extended 7 feet, total length of crosscut from the shaft 208 feet. The end is in hard diorite.—Stopes intermediate level. Work here is now suspended. Shaft A has been sunk a further distance of 4 feet, total depth from brace 81 feet, contract for driving south-west from this shaft has been let.—Jubilee section, Jubilee shaft. The south-west crosscut has been extended 22 feet, making total distance driven from shaft 112 feet. I have been further prospecting at the 50 feet level from this shaft, but have no change to report.—Shaft B. The north-east crosscut has been driven 19½ feet, making total distance driven from shaft 61½ feet, with no change. I have suspended work in the crosscut, and am now making preparation for sinking a further depth of 35 feet. Battery crushing commenced on the 23rd inst. with 5 head of stamps. I was unable to get the 10 head, but the management put in the launders I required for separating the tailing, and sunk pits for holding the same.

VENTERSDORP.—Since the circular of May 21 the following further information has been received from the manager:—Modderfontein borehole No. 1. This borehole has been continued to a depth of 104½ feet, where it had penetrated about 14 feet 6 inches of dolomite. Drilling was then stopped, and the drill removed to a point further north on the dip of the formation, where by latest reports drilling had just commenced, and 5 feet of soil and gravel had been bored through.—Palmietfontein borehole No. 1. This borehole had been continued to a depth of 99 feet. After boring through 5 feet 11 inches of quartzite, another reef formation was entered, and has been drilled through 13 feet, making a total depth of 99 feet. The manager reports that this reef is traversed by layers of what appears to be barren quartzite; he had examined several pieces of the Buffelsdoorn reef, and found that some of their best gold-bearing rock was not unlike this quartzite in appearance, and proposed to prove the value of it by separate assay. This assay has not yet been received. The directors are advised by their representative in Johannesburg that it is the manager's opinion that something good will be found upon reaching the sandstone, as the regular gold carried in the quartzite intermixed with basalt is a good indication.

ECLIPSE.—Extract from report for fortnight ending April 23, No. 1 main shaft. Sinking 13 feet. Depth of shaft 127 feet. Four men employed. Cost per foot £2 11s. 5d.—Crosscut east. Driving 12 feet. Length of drive 42 feet. Four men employed. Cost per foot £1 11s. 4d. Average assay value 7 dwts. 19 grains. This crosscut has been temporarily stopped, as we had passed through the lode, which shows a width of 6 feet.—South drive. Driving 4 feet, total length 4 feet. Four men employed. This drive has been just completed with a view of testing the lode in the direction driven.—No. 2 or south shaft. Sinking 10 feet. Depth of shaft 72 feet. Six men employed. Cost per foot £2 4s. 7d. There is no change to note, the country continues hard for the sinking.—No. 3 or north-west shaft. Sinking 3 feet. Depth of shaft 57 feet. Two men employed. Cost per foot £2 3s. 11d. A ladder way has been put up. The ground passed through is a mixture of ironstone and quartz.

GOONGARRIE.—Extracts from mine manager's report, dated April 25:—The crosscut is now in 84 feet 7 inches. The lode was cut at 59 feet from shaft, have driven 15 feet and not through same, it is an immense body with gold showing in and out. You have a splendid mine if worked properly, will last for years, giving you large returns, and all I can say is, if you only get once per ton from all that is crushed, you will have one of the finest mines in West Australia. There is at present fully five years' work in sight, should produce an immense quantity of gold. According to your instructions, I came down to Coolgardie to arrange for the cartage of the machinery to the mine. I checked and inspected the machinery that was lying at the station and found the number of packages was correct. I stayed and saw seven wagons loaded, these are all now delivered on the mine. The second shipment has arrived. Messrs. Monger and Co. are in charge, and they have sent on one load, which has been delivered in good order.

GOLDEN DOVE.—The following is an extract from our manager, dated April 21: Since Mr. Edwards' departure we have been getting some very rich ore from the footwall. I was surprised to find the reef so big, and also to get the amount of free gold we are getting. Although good, in my opinion we have not struck her yet as good as we are likely to at the depth of another 100 feet; my firm belief is we shall see as much change (for the better) at the water level (i.e., 100 feet), as we have done from the surface to the adit level.

RESPERUS.—Fortnightly report ending April 23, No. 1 shaft east crosscut. This has advanced 23 feet, making a total of 81 feet. A bar of ironstone was passed through, carrying very fine traces of gold. The face is now in soft clay.—No. 2 shaft, east crosscut. This has been extended a further distance of 37 feet, making a total of 73 feet 8 inches. At a distance of 51 feet from shaft the lode was met with, having a westerly underlay. Samples taken from the hanging wall side gave really good results.—No. 3 shaft, south drive. This has advanced 14 feet 6 inches, making a total of 43 feet. At this point a crosscut was put in to find the hanging wall, which was reached in 4 feet 6 inches.

NEW GUADALCÁZAR QUICKSILVER.—Extracts from a letter dated May 16 received from the manager at the mines:—In my last letter I told you in appearance the mine was improving. The two weekly statements will show you that I have not been disappointed. I think I am safe in saying that a still further improvement will be shown next week. The improvement has come principally from two developments works, called San Feliciano No. 6 and No. 2. No. 6 has been in progress for now three weeks only, under the name of Communication San Vicente, and has struck good ore, and is now on Hacienda account producing ore. No. 2 is also producing a good deal of ore, but I am going on with the development here, leaving the ore on the right hand, and putting men on Hacienda account extracting it. I am somewhat in hopes of developing quite a fair sized body of ore here. Certainly San Feliciano has proved itself a small bonanza, and, in fact, may yet prove a big one, very little more formally worked make it so. At present we have stringers in all parts of the working, some of them giving ore as high as 95 per cent., this being obtained on Hacienda account. A campero also gave ore of 94 per cent., and as you will see, the percentage this week shows a considerable increase. I have definitely decided to light up the furnace again on Monday, June 1, commencing to put ore in about the 3rd or 4th, and having our first clean up on Friday, June 11. By that date I hope to see the ore in hand considerably increased, besides the mine in such a condition as to ensure the furnace burning steadily for some time to come.

With the accounts for May I will send you a further draft for £200.—**QUEENSLAND BLACK SNAKE FREEHOLD.**—The manager reports the crosscut date April 4 as follows:—During the last week we have extended the crosscut east another 9 feet, making in all 153 feet from the shaft. The country we are now in is a hard grey rock full of joints, but on the whole shows well. Last night we cut a new reef formation about 10 inches thick, but although the stone shows plenty of mineral I am getting no gold in it. In the early part of the week we broke down the reef in the south level. The reef in the face at present will average between 15 and 18 inches in thickness, and in breaking down showed a little fine gold all through the stone. I have forwarded to the Willets address at Gympie, 1 cwt. of stone for test purposes. During the week we extended the north level 5 feet. The reef here averages about 1 foot in thickness, and when being broken also showed gold. I have forwarded 1 cwt. of stone from this end also for trial purposes. Both samples have been broken from the reef myself, and are not picked. An assay of this stone made by Mr. David E. Reid gives the following result:—Fine gold per ton, 1 ounce 12 dwts. 16 grains; silver per ton, 9 dwts. 19 grains.

VICTORIA REEF.—Mail advices received from the mine manager, dated April 19, report as follows: Captain Oate, of Kalgurli, to-day visited the Victoria, and by permission he was shown over the workings. His opinion is that it is a beautiful formation enclosed in a very hard slate wall, has every appearance of extending for a very great distance, and will improve as it goes down. Has beautiful walls, and is without doubt the best reef in Mount Jackson. He likes the whole of the country very much, and thinks Mount Jackson is a district with a future. The formation is almost similar to the famous formation of Kalgurli, except that it is not so soft and so easily worked, and not quite so much laminated, but in every other respect it is the same. **WEST AUSTRALIAN.**—Mr. Samuel Mitchell, Government Inspector of Mineral Lands, writes under date April 27 that they crushed 25½ tons for 40 ounces 6 dwts. of smelted gold, and that the manager of the bank affirms that the gold from the mine is the best he gets, and is worth 42 ½ s. 8d. per ounce. This gold came from the west drive at water level.

GOLD FIELDS OF TIERRA DEL FUEGO.—Extract from progress report received from Mr. Hyacinthe Rouquette, the company's manager in Montebique, under date April 15:—All the experimental workings I have made on the Munene alluvial are more than satisfactory. The working tests I made in several places, and in the dirt, without going down to and on bed rock, I found seven to 10 nice pieces of gold showing a yield of 8 to 9 dwts. to the pound, which is very rich. It seems altogether a mystery to me that everybody should have neglected to peg off our ground when pegging off ground of the Revue, Mozye, and other valleys, where the sand merely shows two or three colours, while our surface soil shows 8 pieces. The best feature of the ground is that we find gold in every place where we sink; that it is bigger gold than in the other valleys, and as you will see from the gold I sent you, it is evidently not travelled so far as that of the Revue and other alluvials. I am now sinking a shaft in the higher portion of the property, where instead of sand you get good shows yellow clay and iron richer than any sand, and I hope to sink your good news when I reach bed rock. There is now every reason to think you discovered alluvial on the Munene as one of the richest, if not the best, in the whole of Montebique. I called in the Mining Commissioner, who after careful inspection wired the Governor that it was the best looking alluvial he had yet seen.

AURORA WEST UNITED.—The Johannesburg Consolidated Investment Company announce receipt of a report from the above company containing the following: For the week ending May 7 684 feet were developed, and 100 tons of ore hauled. The south reef which was struck last week is looking well. Am busy at present sinking two winzes in the main reef leader to connect up the 4th level. These winzes are 350 feet east and west of the shaft. Our machinery and pump are in good working order.

BANORAL MAIN REEF.—Manager's report for April states that on 1st level west shaft at a depth of 131 feet from surface drives have been driven east and west. The average width of reef is 33 inches with an average assay value of 18 dwts. to the ton. West drive advanced 61 feet. The reef throughout the drive 30 inches in width, with an assay value of leader (12 inches) being 4 ounces 1 dwt. 3 grains. The leader and reef in this drive are two well defined beds of blanket without any foreign or country rock interposing same.

BAYLEY'S REWARD No. 1 SOUTH.—Mine manager's report to April 13:—I beg to report as under for the fortnight ending April 11:—120 feet level. The winze 100 feet north of shaft has been sunk a further 5 feet (two men), total 18 feet. The reef in the bottom is improving both in width and in appearance, though no gold has been seen in the breaking. South drive has been driven 4 feet, total 42 feet from shaft. The reef has pinched considerably, but will probably widen again within 10 feet.—90 feet level. The crosscut east of this level 55 feet south of Whip shaft has been driven 26 feet, total 30 feet. The face is in fairly hard ground, but looks decidedly promising, though we may have to go twice the distance before cutting reef.—170 feet level. No work has actually been done in this level, but the stoping between it and the 120 feet level has been steadily continued. These stopes will be finished at the end of the coming week.—Prospecting shaft. 300 level south of Whip shaft has been sunk a depth of 5 feet (two men), the remainder of the time being taken up timbering, the country in which it is sunk being extremely rotten. Another 6 feet is required to be sunk, and then we will commence crosscutting both ways for the two pieces of the reef as shown on surface.—Battery. We are now running full time, five head on Lady Loch stone and five on our own. We have crushed 140 tons for the month, but so far the total clean-up has not been completed owing to our having to replace the old timbers in portable engine with the new ones sent us.—T. V. Browne.

ETHEL HOPE.—The following is the fortnightly report ending April 25, from Messrs. Bowes Scott and Company, Coolgardie, the mine managers:—No. 1 shaft (Ethel) crosscut. The north-west drive has been extended 4 feet, making a total of 30 feet. The condition and quality of the stone do not differ from our last report. Both in the shaft and drive, in consequence of the recent flooding, timbers have been put in. Underground work on lease 1618 has been stopped during the period of exemption.—Condenser's shaft. This shaft has also had to be secured by timbering.—Main shaft. Ground has been excavated for the hob pit, and a cutting made for sole plates of poppet heads. The carpenters have been engaged making stand for hob, poppet heads, &c., and all the work in connection with the pumping and winding gear is well in hand. The foundations for the boiler are in, but owing to the non-delivery of lime, a temporary delay has occurred in putting in the boiler. A powder building is in course of erection, and the horses and wood cutters have been employed in getting in timber. The Tierra Seca plant, under Mr. Mansfield's supervision, is progressing, but the additional parts, ordered long since in the colonies, have not reached us.—(Signed) Bowes Scott and Company, resident engineers.—N.B.—Machinery. This has no doubt since arrived, at I have cable advice that crushing under a contract for the Limerick Company will commence this week.

GLENLUCHE.—The Johannesburg Consolidated Investment Company (Limited) announce receipt of the following report from the above company: For the week ending May 4 75 feet were developed.—No. 1 shaft. Assays from No. 1 winze north reef give 57 dwts. 15 grains to the ton, and from same winze main reef 35 dwts. 4 grains. It is expected the north reef will widen out as we near the second level.—Battery. A great deal of the battery timber has been dressed, the site has also been cleared, and the pile pits set out.

LOMBARDY GOLD.—Manager reports for week ended April 25: Main shaft. This has been stripped down and timbered, but owing to meeting with water, have had to suspend operations until arrival of buckets.—Water shaft. Contractors have sunk 6 feet 6 inches, total 122 feet 6 inches. Am pleased to say they have come upon water which is daily increasing.

BROKEN HILL PROPRIETARY.—The available yield for the week ending May 28 was 7915 tons treated, yielding 304 tons of lead, containing 144,937 ounces silver. In addition to this, the clean-up yielded 363,678 ounces, which includes 215,237 ounces from matte produced during the half-year. Shares £29; buyers 16 Melbourne.

CRESCENT GOLD.—Fortnightly report of Mr. T. G. Davey, Superintendent, dated April 24: Crescent Mine. Drive north of tunnel B towards main shoot extended 30 feet, total 67 feet. Lode continues to be well defined, but is still poor.—Victory Mine. Drive south of tunnel E advanced 22 feet, total 188 feet. Lode 2 feet wide, and carrying a little gold. We are now stoping at the back of this level both north and south of tunnel, and the lode averages about 3 feet wide, and is valued at 2 ounces of gold per ton. Extension of tunnel E towards western lode advanced 27 feet, total 24 feet. The ground is very favorable for driving. Drive south of winze on western lode 31 feet below tunnel G advanced 7 feet, total 24 feet. North drive at same level extended 9 feet. Stone of fair quality has been passed through during the fortnight, but the lode in each end is now poor.—Chance Mine. Tunnel towards Bannock's eastern lode extended 10 feet, total 47 feet. Drive south of tunnel on lode referred to advanced 18 feet. Lode small, but somewhat auriferous. We should reach payable stone, judging from surface indications, in a few days.—Orlando Mine. Tunnel F extended 8 feet, total 270 feet. We are now approaching a second lode which shows at the surface and is somewhat auriferous. As soon as this is reached we shall go back to the main or eastern lode and drive north on its course.—Mill. We commenced regular crushing operations at the new mill on Victory stone on Wednesday the 18th instant. There is now, in consequence of the late heavy rains, more than an ample supply of water for all our requirements, and the machinery is working smoothly and satisfactorily. The copper plates are looking well, and the stone now being crushed should yield about 2 ounces of gold per ton. It is probable that we shall not require the assistance of the engine until next summer.

EAST NIGEL.—The following is a copy of report received from Mr. Bannock, the manager. Report for the fortnight ending May 9. No. 3 Incline has been sunk a further depth of 7 feet, making the total depth about 120 feet. The extreme hardness of the overlying rock has made the progress very slow, but on striking the reef and the softer shale of the underlay will make much faster progress. We are now erecting the stack for the boilers of the mill which are being broken in. The headgear for No. 2 Incline is being made.

GOLD FIELDS OF TIERRA DEL FUEGO.—Extract from progress report received from Mr. Hyacinthe Rouquet, the company's manager in Mozambique, under date April 9:—Now the rains are over the country is moving. Work is being recommenced on the railway. You may be assured I shall take every advantage I can of the improved state of things to push our work ahead. I have our prospector, as I cabled you, working on the Manene's claims. His first shaft being put down too near the river, which was still unusually swollen by the rains, was immediately flooded with water, but he had time to wash one or two pans, from which he got very nice colours of gold. Sinking another shaft a little higher up, he immediately came across a stratum of iron ground panning extremely well. The gold obtained from test panning I send you herewith. As the stratum was small he is sinking further to find bedrock. The shaft is exactly above a nice looking reef running north and south, which is perpendicular to our first reef, and to the Lucinda and Lion reefs. I immediately showed the alluvial gold sample to Mr. Bannock, as the African Alluvial Company have claims on our eastern extension; Mr. Bannock thinks that he is making a report on it to his company. In a word, the Manene, which was without reason

reported to be very poor in gold, will soon acquire great importance, and the property I have pegged off for the company will be very valuable. The railway survey passes through the claims, and a station will in six months be built within 1 mile of your property. By next mail I hope to have something to report about the reef, the prospector being now engaged in making open cuttings to lay bare the reefs with a view to test them at depth. All that I can say now is that the prospects are as good as I could possibly hope for. The quartz is between two strata slate and schist. I expect to find a rich deposit at the point of the intersection of the two reefs. After this work is finished I shall go to the Chusa, where I shall carry out the agreed programme of work—viz., to peg claims and to open out and prove the reefs.

GREAT BUNYONG ESTATE.—At the alluvial shaft centring has been completed, frames entered, and sinking resumed in rock, with slightly increasing water. At the quartz shaft crosscutting east and west actively proceeding. The former has reached a distance of 25 feet, and the latter 30 feet, in good working country, without increase of water.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, Superintendent, dated April 24: Tiddies Mine, Bibby's new lode. Crosscut north-east of drive north of tunnel F towards Bibby's main lode advanced 26 feet, total 39 feet, reaching main lode, which is small but auriferous at the point of intersection. We are now driving north on its course in order to get under and rise to the shaft sunk from the surface. Extension of tunnel E towards Bibby's lode advanced 6 feet, total 46 feet. Drives have been extended 10 feet north and 11 feet south on the auriferous vein which was reported as having been reached a fortnight ago. This vein is auriferous, but, after all, appears to be only a branch from the main lode, which latter should be reached by crosscutting about 20 feet east. There are such a large number of veins in the vicinity of Bibby's lode all of which are more or less auriferous, and the ground is so faulted and disturbed that it is difficult to locate any given vein even after a most careful survey, particularly as the dip or underlay of these veins is most erratic. The result of our operations at tunnel F, however, indicated that the main lode is, as already stated, about 20 feet east of the present workings at tunnel E, and should be intersected in about a fortnight.—Saint Bernard Mine. Two men are employed at the Saint Bernard Mine extending the upper tunnel on the main lode beyond the Pennsylvania shaft. The lode is 2 feet wide, and valued at 7 dwts. of gold per ton.

HANNAN'S NAPIER.—The following report has been received from the manager at Coolgardie, dated April 20: Dear Sirs,—On receipt of your cable of the 16th inst., reading Napier—confirm your attention to continue sinking main shaft, also driving east crosscut. I visited the mine, and consulted the manager, with the result that I cabled you as follows:—Napier. In reference to your cable dated 16th, strongly advise continuing the western crosscut; hoisting engine similar West Boulder required. In my opinion it would be very unwise to discontinue driving west, as the Hannan's Reward lode, as found in the lease north and adjoining, must pass through the western portion of this company's lease.—Hoisting engine. Now that sinking the main shaft is to be resumed, a winding engine has become necessary, as the whip-horse cannot haul the dirt fast enough. I would advise that the company purchase one of Messrs. J. H. Burwood and Sons' plants, similar to the West Boulder, which will enable the company to continue sinking to a depth of 60 feet. As the main shaft is being sunk in a gold-bearing formation with occasional patches of good ore, increased gold contents may be looked for as depth is attained.—Yours faithfully, for Colin J. McCulloch and Co., (signed) Eversley Thomas.

KING SOLOMON'S GOLD MINES.—Engineer reports for week ending April 29: No. 376 winze sunk 26 feet; cut several quartz leaders carrying good gold on what appears to be large body of quartz. No. 82 drive 41 feet west putting in drive east. There will be a good revenue from superfluous water.

NIGEL DEEP.—Extract from manager's report, dated May 1: Shaft work. C, D, and E shafts have been in operation during the past month.—Labour. During the past month we obtained a good many boys, and we now have sufficient on hand to work all of the shafts, so that before the end of the coming month I expect to have all the shafts in operation.

NINE REEFS.—Superintendent's report for fortnight ending May 11:—Oriental lode, main shaft. This shaft has been sunk 11 feet, total depth below the 313 feet level is 50 feet. The lode is from 4 to 5 feet wide, carrying 2 feet 6 inches quartz, its assay value being 3 dwts. of gold per ton. During the past week we have had to take down some of the hanging wall, or better progress would have been made.—310 feet level north. This has been driven 29 feet 6 inches, total distance from shaft is 178 feet 6 inches. The lode is 4 feet wide, composed of quartz arsenical pyrites mixed with black rock, assaying 4 dwts. of gold per ton.—310 feet level south. This has been driven 28 feet, total distance from Baynard's shaft 159 feet. The lode is 3 feet 6 inches wide, composed of quartz, arsenical pyrites, and black rock, assaying 3 dwts. 5 grains of gold per ton.—Morrison's shaft. We have now completed the new collar of this, and shall proceed to put down ladder way and skip road. A sample taken from the bottom of this shaft assays 4 dwts. of gold to the ton. The lode is 8 feet wide.—New water shaft. Very little progress has been made during the past fortnight, owing to not being able to get good miners.—Surface work. This is going on in the usual way.—Health. The health of the camp continues good.

QUEEN CROSS REEF.—Manager's report for fortnight ending April 14. The underlie shaft has been sunk by contract a further distance of 13 feet, making a total of 95 feet from the drive, 5 feet more will complete this contract. There are 2 feet of good quality stone in the sink. Expect to start opening out two drives off the shaft sometime this week. The winze has been sunk a further distance of 9 feet. The contract is now completed the 100 feet from the drive. The stone has got a little smaller in the east end of the winze, but averages 20 inches of good quality showing gold freely. The eastern drive has been driven a further distance of 6 feet, making a total of 140 feet from the shaft. The reef has not broken down so well as expected for it is only 5 inches in thickness but would advise still keep on driving. The stopes behind the shaft are looking well, but the reef on the Band of Hope boundary has decreased to about 6 inches. Started to crush at the Fair Rosamond mill on the 6th inst., there are 158 tons carted to the mill. The quantity of stone raised for the fortnight is 50 tons, which leaves 266 tons in the paddock.

ROYAL SOVEREIGN.—Manager's report for week ending April 25. Main shaft has been sunk 4 feet, making total of 110 feet 6 inches. Winze in north drive has been sunk 4 feet, making total of 7 feet. The reef is about 2 feet wide, and the stone is looking much better.

SIMMER AND JACK EAST.—Extract from manager's report, dated April 4:—The following footage has been made during the month: Clement shaft. During March, 50 feet; previous to March, 46 feet; total depth April 1, 96 feet. Hammond shaft. During March, 48 feet; previous to March, 52 feet; total depth April 1, 100 feet.

VICTORY (Charters Towers).—Mine manager's report for fortnight ending April 18: At No. 2 shaft during the past fortnight the 320 feet level has been driven west a further 14 feet, total length of this drive up to date 342 feet. The only change in this drive is—we are carrying a felspar leader on the footwall about 3 inches thick the last few feet. In the rise at No. 1a the reef is very irregular. The formation is about 12 feet; there is a vein of stone on hanging wall, and one on the footwall from 3 to 10 inches. The quality of the stone is fairly good, but the formation being so large we have to break a lot of ground to get it. No. 7 level has been driven 7 feet for the fortnight; present length of this drive 323 feet. The ground is still keeping hard here, but the last few feet there has been several heads and floors met with, also a small vein of white quartz about 1 inch thick. There has been 16 tons hauled from this shaft, total at surface 26 tons.—No. 3 shaft. The underlie has been sunk 4 feet. The total depth from straight shaft is 232 feet. There is an improvement here the last sink. The stone we had in the formation is out out, and a new make come in on the hanging wall. At present there is only 4 inches, but it is making larger, and the quality is much better. There is 10 feet of forma-

tion between the walls. The Victoria Company are working a good reef not far from the boundary. We are not quite as deep as that yet, but I think the stone we have got in the bottom will lead to it. At the beginning of fortnight started altering grade in underlie below No. 1 level, for it was unsafe for men to work in the bottom the way it was. This is finished, and one sink taken out during fortnight. The grade is fairly good now, and we can get our dirt away much faster. There has been 5 tons of quartz hauled for the fortnight, total at surface 8 tons. Crushed 52 tons from this shaft for 49 ounces 13 dwts. of gold.

SUNBEAM AND VIGILANT.—Kalgoorlie, April 13: Extracts from report of progress during the week ending April 11: Sunbeam lease. The original shaft, which I propose in future calling shaft No. 1, has been sunk no further, and remains 70 feet deep. We have crosscut in a westerly direction, altogether 27 feet. Though we have passed through several leaders of ironstone which are becoming strong, and which are a good indication of a change in the kaolin, we have encountered no further indications of moment. We have commenced a crosscut in this shaft in an easterly direction, and have got in 4 feet in the kaolin towards a likely looking outcrop of ironstone and quartz. On this lease we have commenced another shaft which I propose calling shaft No. 9, the approximate position of which I have shown on the tracing sent herewith; here, with good ground we have sunk 9 feet, and have struck an ironstone and quartzite formation striking north-east and with north-west underlie, which looked to me so likely that though we could get no gold from it by panning I took three samples to be fire assayed. They each went 3 dwts. to the ton, which, though not heavy, is better than nothing. I shall look anxiously to this as we go down.—Sunbeam north lease. The shaft on this lease, which I propose to call shaft No. 2, has been sunk to a total depth below the brace of 64 feet, and we have crosscut in an easterly direction 3 feet towards the ironstone outcrop where gold was expected. The bands of ironstone are strengthening, which is a good indication.—Sunbeam east lease. The shaft on this lease, which I propose calling No. 3, is in the same state as last week—viz., 65 feet deep. We have driven the crosscut west 93 feet. The quartz and ironstone leader, which I referred to hopefully in my last weekly report, has pinched out apparently, and we have not yet struck any big lode formation. The country is still easy and sound.—Sunbeam extended lease. This shaft I propose to call No. 4. It remains as per last report, 84 feet down below the brace. We have now crosscut in a westerly direction 22 feet, and in an easterly direction we have put in a crosscut 3 feet. The ground is the same as last reported.—Vigilant lease. We have continued sinking this shaft, which I propose calling shaft No. 5, to a depth of 71 feet, and have crosscut 2 feet in a westerly direction, towards the junction of two surface cappings.—Vigilant north lease. This shaft, which I propose to call shaft No. 6, is down the same as last reported, 66 feet. The crosscut east is now in 26 feet. In this we have cut a nice little quartz leader, striking nearly north and south, with a westerly underlie, which looks kindly, but from which we have not got gold by panning.—Vigilant extended lease. From the old shaft, which I call shaft No. 7, we have been able to conserve 900 gallons of water, worth quite £22 10s. The new shaft, which will be shaft No. 8, is now being timbered, and is down 10 feet. Generally speaking, we shall have to be prepared to exercise considerable patience in prospecting these blocks, and put up with not a few disappointments.—Extracts from report of progress during the week ending April 18: Sunbeam lease. The only work done in connection with shaft No. 1 has been a progress of 20 feet in the crosscut from that shaft in a westerly direction, making the total length of the crosscut 47 feet. The kaolin has become much tighter, and we have met with three leaders of ironstone. We found a slight colour of gold in some gossan in the last cut, which was encouraging as it was dipping west, and we are hoping to meet the lode in this direction. We are already considerably past the first ironstone outcrop with this crosscut. In shaft No. 9 we have completed timbering and have recommenced sinking. The present total depth is 13 feet, principally through argillaceous ironstone of the nature of laterite. I propose crosscutting westerly in this shaft about 35 feet down to catch the formation mentioned on page 17.—Sunbeam north lease. The crosscut east from the bottom of shaft No. 2 has been driven 16 feet in the direction of the ironstone and quartz outcrops, through decomposed porphyry and heavy ironstone. 20 feet further will take us under the outcrop of ironstone and quartz, but I should expect it will dip west, and think the heavy ironstone we are now in forms part of this formation.—Sunbeam east lease. The total length of the westerly crosscut from shaft No. 3 is now 119 feet. My present idea is that it will be useless to proceed more than 150 feet here, if as much. I am now considering this matter carefully. During the week we have driven through kaolin and decomposed porphyry, with two small ironstone veins, but we have not come across any important formation.—Sunbeam extended lease. The total length of the westerly crosscut from shaft No. 4 is now 37 feet, and of the easterly crosscut 21 feet. The whole of the work done this week has been in porphyritic rock and ironstone.—Vigilant lease. We have continued the crosscut west from the bottom of the shaft No. 5 to a total distance of 12 feet. It is almost altogether in hard ironstone with a little decomposed porphyry intermingled. This drive will probably have to go 70 feet to get through the junction of the two reefs, and I consider this a very important point. I propose cutting a costean near this point over the two formations.—Vigilant north lease. The crosscut east is now in 50 feet from the bottom of shaft No. 6, and may have to go some 10 feet more. We are now in ironstone and porphyritic rock.—Vigilant extended lease. Shaft No. 7 still holds a little water, proving the ironstone and clay in which it is situated to be good ground for a tank bottom. Shaft No. 8 is timbered and now down 22 feet from the brace in ironstone and clay of the laterite description. As we are not getting a payable formation where we are at present prospecting unless there is a change in a few days, I contemplate opening up other points on the properties, in the first instance, by costeaning.—Percy Thursty.

SALISBURY-MURCHISON GOLD.—The following report upon the property for the month of April has been received by the directors: Salisbury-Murchison Gold Mine (Limited), Cue, Western Australia, April 26.—Salisbury. The main levels north and south referred to in my last report have been extended as follows: North drive, 28 feet; south drive, 24 feet from the crosscut. The lode in the south end is 6 feet wide; that in the north face is split up with country rock, but appears to be making more solid as the level advances. About 150 tons of stone have been raised from these drives, which are now being crushed at one of our public batteries. The gold is extremely fine, and I do not think we shall have above 60 per cent. in one operation. The machinery is nearing completion. Poppet heads are erected, and the various connections will all be finished in a short time.—Agamemnon. The main shaft is down 128 feet into a fine lode, about 4 feet wide; assays made from this reef from time to time have given from 4 to 3 ounces per ton. The gold is coarse and of good quality. Judging from the depth at which we cut the stone in the shaft, I do not think it is in the same track as the reef at surface, but it is a new slab of stone which has formed on the hanging wall. This seems to be the mode of occurrence at these lodes—viz., one slab of stone overlapping another. If this should prove to be the case, it will give a greater height of backs to work when we come to stop out the ground. Taken altogether, this lode looks remarkably well as far as we have yet opened it up.—Tasmania. The winze below the 50 feet level is down 32 feet. Lode about 4 feet wide. In the course of next month, I shall crush about 50 tons from this winze, which I think will be payable.—(Signed) E. Wattie, manager.

WEST BOULDER GOLD MINES (W.A.).—The following report has been received from the company's agent at Coolgardie, dated April 28:—Mining progress. Very cheap contracts have been let for crosscutting between the different shafts, and I have no doubt in my mind whatever but that very satisfactory developments will occur in these crosscuts. The adjoining property, the Ivanhoe, is opening up remarkably well. There are two parallel lodes in the Ivanhoe that must pass through lease No. 888, and a lode coming in from the Great Boulder property that will, in all probability be met with in lease No. 1168. To the north again is the Boulder North Extended, in which very good ore is being won,

ARMADALE.—Fortnightly report of mine works: No. 2 shaft, 90 feet level north drive advanced 27 feet, total distance from shaft 77 feet, and holed through to No. 3 shaft; ventilation not perfect. South drive same level advanced 2 feet from rise, and 23 feet from shaft. Sample tested from quartz in face of drive equal to 13 dwts. per ton. No. 3 shaft sunk 20 feet, total depth from surface 110 feet, and holed through to north drive No. 3 shaft. Lode much the same as last report.

BREMNAES GOLD.—The following report has been received from the mine, dated Hagesund, May 23:—Risvig Mine. In the 400 north level the quartz has increased in width to nearly 2 feet, contains a little mineral, and shows by assay 4 dwts. 10 grains gold to the ton. The quartz in the stope in back of this level holds a width of 2 feet, is highly mineralised, shows gold, and assays 13 dwts. per ton. There is a strong lode in 300 south end, with quartz over 3 feet in width, containing bunches of copper and iron pyrites. In the 200 south level the men with drill are making good headway. The lode here is 4 feet wide, with quartz in strings and bunches over the whole face of the level. Portions of the quartz contain an excess of mineral, such quartz assaying over half an ounce gold per ton.—Fladenes Mine. The level driving north shows quartz 3 feet in width, about 10 inches of same running with foot-wall carries copper pyrites and a little galena, and has value for gold 6 dwts. per ton. In the level and stope working north from winze there is about a foot of quartz well mineralised, and showing gold by panning. In the workings south the quartz has a much greater width, averaging quite 3 feet, and showing by assay nearly 10 dwts. gold to the ton.—Gjeskog Mine. In the stope in back of upper level the quartz is 15 inches in width, and carries a large quantity of galena. The men have commenced to drive and stope in end of No. 1 north level. The quartz is over 2 feet wide, containing galena and copper pyrites, and during the week has produced stones showing gold.

BAMBOO QUEEN AND REWARD MINES.—Mr. William Straghan, the manager, cables, dated May 26: Engine shaft has reached a depth of 25 feet. The country rock is very hard (but) I expect softer ground as we go deeper. Levels will not be opened until the shaft has been sunk 200 feet.—Reward Mine. Crosscutting towards the hanging wall on the 80 feet level through the vein formation. Crosscut has advanced 50 feet. Hope to start to sink main shaft shortly. There seems every prospect of this mine turning out satisfactorily. I consider it a most valuable property.

BLACK HORSE AND SANDSTONE.—Advices from Melbourne, dated respectively the 18th and 25th April, contain the following information respecting the developments on the Sandstone Mine: During the week good progress has been made on the mine both below and on the surface.—No. 2 level north drive. The rise is up from the back of the level 27 feet, making 13 feet driven for the week, carrying reef full width of rise. Gold seen this week. Width of reef not known.—Intermediate between Nos. 2 and 3 levels. This drive is 20 feet from rise, making 8 feet for week. Width of reef not known. Gold seen in breaking, lode disturbed, intersecting two shoots of gold or makers of quartz is no doubt the cause.—No. 5 level north drive. This drive is in 34 feet from rise, making 13 feet driven for week. Reef opened to near 4 feet wide, with 1 foot 3 inches of nice laminated quartz on west or hanging wall, but have seen no gold, but a very kindly looking end.—No. 4 (or 600 feet) level. I am glad to inform you that since my last report a great change has taken place for the better in the 600 feet or No. 4 level. Gold seen in a new splice of quartz at first not an inch thick, is now a good width, water coming in freely, showing the block of quartz is a big one. There have been 13 feet driven for week, making the total of 60 feet from survey mark. Width of reef 3 feet.—Battery. The battery is being pushed on with all possible speed.—The Melbourne secretary reports that the appearance of the mine is very satisfactory.

CENTRAL NIGEL DEEP.—Extract from managers report, dated May 1: Shaft work. The sinking in shafts 1 and 2 has been quite favorable. Shaft No. 2 was sunk under contract, and shaft No. 1 by day labour.—Labour. We have been quite successful in procuring boys, and we have now as many as we require.

CENTRAL BOULDER GOLD MINES (W.A.).—Mine manager's report for fortnight ended April 23: Main shaft. Here we have been unfortunate in striking an extremely hard bar of country rock, and the contractors have been unable to make any headway against it, the total amount sunk during the fortnight being only 12 feet. This gives a total measurement from surface of 92 feet. We shall require to go another 14 feet to be on a corresponding level with No. 1 shaft, and if the present hard rock continues it will take some considerable time to get down the required depth. Up to the present we have not done sufficient work in this hard rock to enable me to form an opinion as to whether it is merely a bar or the first indication of the near approach of the dioritic rock, which is up to the present time the proved bedrock of the district.—No. 1 shaft. A whip pole has been erected. This will greatly facilitate operations here, and in addition will be a considerable saving in the cost of hauling the dirt. Work is also being carried out here by contract, a party of men having undertaken to drive 100 feet at the rate of 15s. per foot. This is remarkably cheap considering the nature of the ground to be broken. Contractors have driven 10 feet for one week. The lode formation remains unchanged.

FORBES REEF.—The mine manager, under letter dated May 2, reports progress for the month of April as follows:—Avalanche mill. Tons milled 2340, number of stamps working 20, number of days mill ran 23 days 6 hours, smelted gold won 102 ounces.—Avalanche Mine. Tons mined and sent to mill 2340, spoil dumped 200 tons. Several sets of rotten timber taken out and replaced by new timber in main adit mined. The mine has been kept in good working order, but the ore mined and milled has been very low grade. This is owing to the gold-bearing leads and quartz stringers pinching out as depth is obtained in the mine. There are large reserves of this low grade stuff, worth about 1/2 dwt. to the ton in sight, but I do not think this low grade stuff can be worked at a profit. Tiam lines have been altered and repaired as required from time to time.—Boring No. 3 bore hole. This bore hole has been sunk 14 feet in hard, solid, barren quartz rock this month. The total depth of this bore hole is now 278 feet. The scarcity of Brazilian carbons (none being obtainable in South Africa) is the cause of so little progress with the boring operations here.—No. 9 bore hole. This bore hole has been sunk 18 feet this month. The rock cut was barren white quartz. The total depth of this bore hole is now 120 feet. Boring operations had to be suspended here on April 23 for want of carbons to set crowns.—Electric transmission power plant. The damages caused by lightning to the armatures of motor were repaired, and the plant started on the 2nd of this month. Since then the plant has run full time in good order. All spare parts of the machines have been repaired, and kept in readiness to replace in case of accidents.—Machinery. All machinery in use has been kept in repair and good working order.

LISBON-BERLYN.—The manager's advices give the following details of work done during April:—Mining. Theta north. Thickness of reef, 12 inches; output, 484 tons; assay value 8.78 dwts.—Theta north (No. 2). 218 feet driven; thickness of reef, 9 inches; output, 43 tons; assay value 2.70 dwts.—Theta south. 282 feet driven; thickness of reef, 12 inches; output, 1233 tons; assay value 12.30 dwts.—Theta south (prospecting). 98 feet driven; thickness of reef, 17 inches; output, 75 tons; assay value 12.75 dwts.—Theta mill section. 134 feet driven; thickness of reef 13 inches; output, 177 tons; assay value, 6.50 dwts.—Theta West Creek. 12 feet driven; thickness of reef, 6 inches; assay value 20 dwts. The last mentioned is a new prospecting drive begun during the month on the south side of West Creek opposite the Theta south prospecting section. The reef had no visible outcrop, being covered over with fallen debris, and the manager says it will take some time to get in and test it. It shows good free gold in the pan, and assays 20 dwts. per ton.—Milling. 10 stamps ran 44 days, and crushed 130 tons ore, from which 6.8 ounces fine gold were obtained. The crushers ran continuously on day shift, and crushed 1487 tons (dry weight) preparatory to direct treatment at cyanide works.—Cyaniding. 1487 tons dry crushed ore and 88 tons of tailings were treated during the month, and the bullion recovered amounted to 754.50 ounces of an estimated value of £2181.

LYDENBURG (Transvaal).—The following is a summary of the work done on the property since the arrival of the manager, Mr. J. A. Woodburn, in the middle of December last by the Chairman, and partly from the subsequent reports of Mr. Woodburn.—The two series of rocks. There are two series exposed in some of the farms; the sandstone series usually known in the district as the lower sandstone, and the dolomite series (of which there may be two) which is the same that extends over a great area in this district. The following is the description of a deposit found on the Elandsfontein farm:—This is a seam running into the dolomite, and has a fairly steady assay value of about 9 dwts. The seam appears to be split into two layers, a top and bottom seam; at the outcrop the top seam was only 1 inch thick and the bottom seam 12 inches, but as the drive has been put in the top seam has thickened to 6 inches, whilst the bottom seam has attenuated to 3 inches. This alternate thickening and thinning is very characteristic of seams in dolomite. The character of the ore is similar to that obtained from other dolomite reefs in the district. The outcrop of the dolomite seam has recently been found on the other side of the range of hills, so that it is probably continuous, and will give an enormous body of ore. Crossing the valley beyond the outcrop, the sea appears in the corresponding zone of the limestone on the opposite hill. There are also some old workings in the dolomite limestone, on the Wakkers Dal farm which were examined, and work is now being started on these with some prospects of finding a good seam. The following is a description of a reef found on the lower sandstone on the farm of Claremont:—This is a vein dipping vertically into the sandstone. Appearances at present seem to indicate that this is a fissure vein, and if so it may get richer as the sinking becomes deeper; it appears to be similar to a number of other veins on neighbouring properties. Owing to its dipping vertically work is slow; at present the shaft is down 17 feet, but arrangements are being made for the work to be expedited. The ore in this vein is very irregular, in some places visible gold is found and the assays are high, and in other places the assays made give a value of a very few grains. These discoveries are on the farms of Elandsfontein, Wakkers Dal, and Claremont, which leaves the largest part of the property still unexplored.—Staff accommodation. The manager writes: "We have been fortunate in securing a very healthy site at the head of a broad valley. The staff quarters are now completed, and we are in process of taking possession, and the erection of a house for prospectors is now being proceeded with." The work hitherto done has been managed at a great distance from the farms, and under conditions of difficulty. The proper investigation of the water supply and of available horse power is being pursued by the manager and a full report is being sent home.

MINERVA GOLD.—Mine manager's report for week ending May 2: Mill. 40 stamps ran 6 days 6 hours, crushed 1014 tons.—Cyanide. Tailings treated 524 tons, average value 10 dwts. 13 grains.—Development. No. 4 shaft sunk 8 feet to 90 feet. No. 4 shaft north and south each driven 6 feet to 14 feet.—Assays. South-west stope 2 feet 6 inches wide, 8 dwts. 4 grains. Orion face 17 dwts. 12 grains. West stope 3 feet wide, 1 ounce 2 dwts. 18 grains. Leader Orion face 10 ounces 19 dwts. 8 grains.—Remarks. As you will observe the ore has considerably improved, and prospects look brighter for this month. We have got all water out and broken into the Orion stope. The ore that remains in this direction is very good. I shall push on development on the Meyer and Leeb boundary as soon as possible. Rain has somewhat interfered with the work of the new dams. I have some 5,000,000 gallons stored in the lower dam and No. 1 reservoir. I shall have to shut down the mill for a day this week to get in the new pump barrows, and connect the flue of the mill boiler with the economiser and stack.—Monthly return. Stamp run 35 days, crushed 5737 tons, yielding 304.5 ounces.—Cyanide. Tailings treated 2923 tons, bullion 1104.16 ounces, average per ton 7 dwts. 13 grains. Residues treated 1140 tons, bullion 269 ounces 8 dwts., average 5 dwts. 17 grains.

MEYER AND CHARLTON.—Report for the month of April: Mine. Number of feet driven, sunk, and risen 281 feet, ore opened up by development 9440 tons, quartz mined 9034 tons.—Mill. Number of days (24 hours) working 70 stamps 26 days, ore crushed 7500 tons, yield in smelted gold 2635 ounces 6 dwts. 4.8 grains, yield per ton 7 dwts. 0.659 grains.—Cyanide works. Tailings treated 6330 tons, yield in bullion 1371 ounces 8 dwts. 12.96 grains, yield per ton treated 4 dwts. 8.07 grains, working cost per ton treated 4s. 19d. Working expenditure. To mining (including maintenance) £4716 6s. 7d., to transport £110 13s. 9d., to milling (including maintenance) £1480 6s. 6d., to cyanide works (including maintenance) £1448 15s., to general charges £1134 7s. 3d., to mine development account £948 10s. 11d. Revenue. By gold accounts: 2,635.310 ounces from 70 stamp mill at 73s. 6d. per ounce £9884 15s. 4d., 1,371.427 ounces from cyanide works at 60s. per ounce £4114 5s. 7d., by rents £50 10s., total £13,349 10s. 11d.; profit for month £4010 10s. 11d.—Working costs (on basis of tonnage milled). Mining expenses 11s. 9.555d., transport 3s. 5.52d., milling 3s. 3.735d., cyanide works 3s. 6.125d., general charges 3s. 0.300d., maintenance (mine, mill, and cyanide works) 1s. 9.237d., mine development 2s. 6.354d.; total working costs £16 2s. 2.848d.; value of yield £1 16s. 9.569d.; profit 10s. 16.721d.—Expenditure on capital account. Machinery, plant, buildings, &c. £3399 10s. 9d., main incline shaft £69 11s. 3d., total £3469 2s. Crushed during the month: Main reef 2539 tons, south reef 4362 tons, leader reef 599 tons. 70 stamps were in operation during the month. The new 20 stamps were completed and in readiness to start on April 1, but, owing to the scarcity of native native, 10 only could be worked. The company's labour requirements, however, have now been obtained, and the 80 stamps will be running in May.—George Aibu (managing director), Johannesburg, P.O. Box 27, May 8.

ORION GOLD.—Mine manager's report for week ending May 7: Development. Driving main shaft north 29 feet, west 34 feet. No. 6 shaft north 29 feet, west 34 feet, making a total of 126 feet driven for the week.—Assays. April 24. Main shaft north 3 ounces 9 dwts. 10 grains. Reef 8 inches. Main shaft west 1 dwt. 4 grains, reef 3 feet. No. 6 shaft west 2 dwts. 1 grain, reef 13 inches.—Assays. April 28. Main shaft north drive 4 dwts. 2 grains, reef 11 inches. Main shaft west 1 dwt. 4 grains, reef 2 1/2 feet. No. 6 shaft north 14 grains, reef 2 inches. No. 6 shaft west 14 dwts. 14 grains, reef 6 inches. On the night of April 23 the reef in the north drive No. 6 shaft disappeared owing to a break, but was picked up again on the night of the 27th, and has improved from 2 inches on the 28th to 4 inches on May 1. 96 tons of ore have been dug during the week, making 1285 tons at grass.

ROODEPOORT.—The Johannesburg Consolidated Investment Company announce receipt of a report from the above company containing the following: For the week ending May 7 77 feet were developed. The development for April amounted to 370 feet, in addition to which considerable stoping has been done. Shoots are being put in, and other detailed work being got ready for milling.—4th level. The drives on 4th level went on to open up with fairly good prospect. During the month a systematic sampling of south and main reef drives 4th level have been made giving satisfactory panning.—Battery. We have made a trial run with the 40 stamps, and intend to get the work sufficiently advanced to commence milling on May 11.—Cyanide works. The erection of another 100 ton vat is in hand, which will prove of considerable benefit in the future treatment of tailings. The water supply is plentiful.

VESTA GOLD.—Mine manager's report, dated May 7:—I have pleasure to report that the new pump has been placed in No. 1 or east shaft. The vertical shaft in connection with this work, a depth of 26 feet, is completed. In making this shaft we find the reef about 6 feet thick. The new lines will now be commenced. In No. 2 or west shaft we still find a break in the reef, and to all appearance the latter dips lower. The shops are nearly all framed, and we hope to have them completed shortly. Boarding house foundation completed, and building framed. Stores and offices being pushed on. Manager's house will be completed this week.

WATER TRUST, MINING, AND PUBLIC CRUSHING COMPANY OF WESTERN AUSTRALIA.—Extracts from report of general manager, dated April 30:—80 stamp mill. The remaining portion of the machinery has now reached Fremantle. The erec-

tion of the battery has commenced, and is proceeding to the refraction of the general manager.—Golden Pig Mines. The mine manager reports:—100 feet level. North drive has now been driven 164 feet from Whip shaft. The lode here averages about 5 feet wide, yielding good stone. South drive has been driven 206 feet from Whip shaft. Lode here continues unchanged, with every prospect of a large body of payable stone going below this level.—Engine shaft is now down 135 feet. Sinking is being continued as rapidly as possible to the 200 feet level. With regard to the lode in the north drive, Mr. Carl Hesse, the general manager, reports that his assays from it show fully 1 ounce of gold per ton.

VICTORIA AND QUEEN.—Manager's report for fortnight ending April 14: Have driven the No. 4 drive a further distance of 11 feet, making total 68 feet. The reef is about 6 inches thick of heavy mineral stone. The winze at the end of No. 3 crosscut has been sunk a further distance of 25 feet, making total 74 feet. There is a leader about 3 inches thick in this winze. Have driven the No. 3 drive a further distance of 11 feet, making total 147 feet. The reef is about 1 foot thick of good quality stone. The underhand stope No. 3 drive averages from 9 to 15 inches of good quality stone. The back stope No. 3 drive average about 1 foot of fair quality stone. We have had a rough cleaning up during the fortnight of 260 tons which gave a yield of 687 ounces of melted gold. We have had broken time this fortnight, which accounts for the small haulage of quartz. Hauled during the fortnight 105 tons, making total 500 tons.

HORSHAM MONITOR SYNDICATE.—Mine manager's report for week ending April 30: Developments. Sinking No. 1 vertical 8 feet to 241 feet; main incline 8 feet to 269 feet. Driving No. 1 vertical second level. West reef north 8 feet to 53 feet. West reef south 8 feet to 49 feet. Crosscuts 6 feet to 116 feet. I have started to turn the No. 1 vertical shaft off on the incline, having struck the west reef in it.

MOUNT MAGNET.—Extract from *Murchison Times*, April 25: "We are pleased to report that recent developments at this mine are of a most encouraging character. At the south shaft on the eastern reef, in the drives north and south, the stone averages 2 feet 9 inches wide, and will yield 20 dwts. per ton. 200 feet north is No. 2 shaft, sunk to a depth of 50 feet, and drives extended on course of lode. The formation is fully 5 feet wide, the quartz being 3 feet wide, yielding 16 dwts. per ton. The drives at the 60 feet level in the main lode (lease 563) continue to produce high grade stone, the reef varying in width from 12 inches to 3 feet. The work of cutting down—i.e., enlarging the shaft for pit work, cage, &c.—is proceeding apace. The masons are busily engaged at the foundation for winding plant, which is daily expected to reach Geraldton. The workings on the auriferous dyke formation at the 60 feet level are opening out splendidly. At this point the deposit is 15 feet wide, of which 8 feet shows a bold value of 30 dwts. per ton. Indeed, when the company decide on crushing their own material, the whole of this ore body will be treated. It is impossible to sort the ore advantageously as the gold is disseminated throughout. We hear that the directors have asked for specifications and estimates for mining and milling machinery capable of developing this valuable property to great depths."

NUNDYDROOG.—Thomas Richard's report for the fortnight ending May 9: Kennedy's shaft has been sunk 2 feet 9 inches, total depth 27 feet 6 inches below the 700 feet level. The 700 north has been driven 13 feet, total distance 88 feet 6 inches. Lode 4 inches wide, assays 3 dwts. 18 grains of gold per ton. The 700 south has been driven 8 feet, total distance 77 feet 6 inches. Lode 1 foot wide, assays 10 dwts. The 600 north has been driven 15 feet 6 inches, total distance 475 feet. Lode 1 foot 6 inches wide, assaying 1 ounce. The 600 north rise has been put up 22 feet, total height 105 feet, and at this point it communicated with the 520 level north. The 600 south crosscut east has been extended 8 feet, total distance 16 feet. A small branch of quartz of no assay value has been intersected. In two stopes in the back of the 520 north the lode averages 6 feet 6 inches in width, and 1 ounce 1 dwt. 21 grains in assay value. The lode in the stope in the back of the 440 north is 4 feet 6 inches wide, and assays 2 ounces. The 440 south has been driven 6 feet, total distance 1412 feet 6 inches, and a communication has been effected with the winze sunk below the 520 north from main shaft. The crosscut west from this level has been extended 14 feet, total distance 179 feet. At about 170 feet a well defined lode of no assay value was passed through. The 370 north crosscut west has been extended 5 feet, total distance 525 feet. This has been suspended, and driving south on the lode at 410 feet resumed. In two stopes in the back of the 370 north the lode averages 6 feet 3 inches in width, and 3 ounces 4 dwts. 9 grains in assay value. In the stope in the back of the 370 south the lode is 5 feet wide and assays 1 ounce 1 dwt. 6 grains. The 300 north has been driven 10 feet 6 inches, total distance 411 feet. Lode 6 inches wide, assays 3 dwts. 18 grains. A rise started in the back of this level has been put up 7 feet 3 inches, and the lode is 2 feet 6 inches wide, assaying 2 ounces 10 dwts. The lode in the stope in the back of the 300 north is 5 feet 6 inches wide, and assays 10 dwts. 15 dwts. The 230 north crosscut west has been extended 2 feet 3 inches, total distance 3 feet 3 inches. No change. In the stope in the back of the 230 north the lode is 1 foot 6 inches wide, and assays 6 dwts. 6 grains. The 230 south has been driven 4 feet, total distance 314 feet. The lode, consisting of stringers of quartz, assays 2 dwts. 12 grains. The lode in the stope in the back of the 190 north is 4 feet wide, and assays 1 ounce 2 dwts. 12 grains. The 160 south has been driven 7 feet 9 inches, total distance 512 feet. Lode shows a trace of gold. In the stope in the back of the 95 north the lode is 3 feet wide, and assays 5 dwts.—North shaft: has been sunk 1 foot, total depth 51 feet 6 inches below the 600 fathom level. The lode is 3 feet wide, assaying 7 dwts. 12 grains.—New shaft has been sunk 3 feet, total depth 113 feet below surface. Sinking is suspended while divisions and ladders are being put in.—Main shaft has been sunk 6 feet 6 inches, total depth 17 feet below the 1160 level. The 1160 north has been driven 18 feet, total distance 86 feet. The lode, consisting of stringers of quartz, assays a trace of gold. The 1080 north winze has been sunk 7 feet, total depth 63 feet 6 inches. Lode 4 feet 6 inches wide, assays 1 ounce 5 dwts. The cutting of another pump station has delayed the sinking. In the type in the back of the 1080 north (northwards from No. 1 rise) the lode is 4 feet wide and assays 1 ounce. In the stope in the back of the 920 north the lode is 4 feet wide and assays 13 dwts. 18 grains. The lode in the stope in the back of the 920 south is 6 feet wide and assays 11 dwts. 6 grains, and in the stope in the bottom of the same level it is 3 feet wide and assays 1 ounce 2 dwts. 12 grains. The 680 north has been driven 5 feet, total distance 604 feet 6 inches. Lode of no assay value. Drivage north suspended and crosscut east commenced. The winze in the bottom of the 520 north has been sunk 1 foot 6 inches, total depth 8 feet 6 inches, and has communicated with the 440 south from Kennedy's. The 370 north has been driven 8 feet 9 inches, total distance 207 feet 9 inches. Lode being of no value, a crosscut east has been put out 5 feet 6 inches, but nothing further has been met with.—Taylors' shaft. The 1240 north has been driven 4 feet 9 inches, total distance 287 feet 3 inches. Lode of no assay value. The 1240 south crosscut east has been extended 7 feet, total distance 49 feet 6 inches. No change. In two stopes in the back of the 100 north the lode averages 3 feet in width and 4 dwts. 9 grains in assay value. In the stope in the back of the 920 north the lode is 3 feet wide and assays 5 dwts. In two stopes in the back of the 840 north the lode averages 2 feet 9 inches in width and 15 dwts. 15 grains in assay value. The 840 south rise has been put up 9 feet 6 inches, total height 54 feet 6 inches. Lode is 1 foot wide, assaying 5 dwts. 15 grains. In the stope in the back of the 600 north the lode is 3 feet wide and assays 6 dwts. 6 grains. In the stope in the bottom of the 520 north the lode is 3 feet wide and assays 1 ounce. The lode in the stope in the back of the 520 north is 2 feet 6 inches wide, assaying 7 dwts. 12 grains, and in the 230 south back stope it is 2 feet wide assaying 12 dwts. 12 grains.—Old Mill samples. Pulp, 1 ounce 3 dwts. 18 grains; tailings, 3 dwts. 3 grains.—New Mill samples. Pulp, 1 ounce 7 dwts. 12 grains; tailings, 4 dwts. 12 grains.

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BALAGHAT MYSORE.—Thomas Richards' report for the fortnight ending May 9: Ogle's shaft. The 270 feet level south has been driven 4 feet 9 inches, total distance 386 feet 3 inches, and having reached the southern boundary has been suspended. The lode, 5 inches wide, is of no assay value. Preparations are now being made for the extension southward of the 410 feet level, and air pipes for the conveyance of compressed air for the rock drill will soon be fixed there.—Haines' shaft. The 410 feet level north (on the lode, from a turn to the westward in the former drive) has been driven 5 feet, total distance from the shaft 180 feet. The lode, 1 foot wide, with stringers of quartz throughout, assays 1 dwt. 15 grains of gold per ton.

BAYLEY'S REWARD CLAIM.—Mine manager's report to April 13:—Report of work done during the fortnight ending April 11: Everard shaft. The south drive from this shaft has been driven 13 feet and holed through to air shaft, total length 95 feet. At a point 48 feet in this drive we have started rising, now up 6 feet. Lode about 1 foot wide; no gold visible.—Air shaft. South drive extended 13 feet, total distance 46 feet. The ground is close grained and very hard.

CLYDE.—The following is an extract from a report recently received from the manager: I beg to report as follows for the week:—The crosscut at the 200 feet level in main shaft is now in hard dolomite. We are continuing the crosscut for some distance, as it looks as if another reef was close to, the direction of the drive being due east, and a stringer of quartz from 3 to 4 inches thick running in this direction. We are getting a larger supply of water, but not sufficient quantity to demand a pumping engine. I am sorry to say that owing to the block on the railway system, the machinery is still lying in Fremantle. At the present time I say it is impossible to get anyone to take any interest in looking after material travelling on the railway, their sole object being to get it out of their hands into someone else's as quickly as possible, no matter in what condition. I intend making a trip to Fremantle in the course of a week or so. In the meantime we are pushing ahead as rapidly as possible at the mine, and if we can once get the machinery landed in Coolgardie, we shall lose no time in its erection, and get it to work, so as to give returns, as these long delays must certainly be causing you great anxiety and annoyance. Messrs. Sandover are now putting the machinery on the rails; from advice I received this morning so that I hope soon to make a start erecting the machinery. Until this is done, as you will see, nothing of importance can take place, that is in the way of returns, but I may say that the lease recently acquired, No. 416, is a great acquisition to the property. Two or three reefs have already been discovered, but owing to the deaths of two of the late owners and pecuniary difficulties, it has not been developed to any extent.

DE LAMAR.—Report on mining and milling operations for the month ending April 30: Mining. Ore breaking department, Wilson vein above 3rd level. Average width of vein 3 feet 3 inches, assaying \$22.75 in gold and \$0.75 in silver, equal to \$23.50 per ton.—Hamilton vein above 5th level. Average width of vein 5 feet, assaying \$16 in gold and \$1.75 in silver, equal to \$17.75 per ton.—Hamilton vein above 8th level. Average width of vein 2 feet 6 inches, assaying \$13.75 in gold and \$7 in silver, equal to \$20.75 per ton.—77 feet vein above 4th level, intermediate. Average width of vein 3 feet 3 inches, assaying \$18.25 in gold and \$1.50 in silver, equal to \$19.75 per ton.—77 feet vein above 5th level. Average width of vein 4 feet 3 inches, assaying \$17.80 in gold and \$2 in silver, equal to \$19.80 per ton.—77 feet vein above 6th level. Average width of vein 2 feet 7 inches, assaying \$20 in gold and \$1.85 in silver, equal to \$21.85 per ton.—77 feet vein above 7th level. Average width of vein 8 feet, assaying \$16 in gold and \$1.50 in silver, equal to \$17.50 per ton.—77 feet vein above 8th level. Average width of vein 4 feet, assaying \$6 in gold and \$1.4 in silver, equal to \$7.40 per ton.—77 feet vein above 9th level. Average width of vein 4 feet, assaying \$14 in gold and \$1.1 in silver, equal to \$25 per ton.—77 feet vein above 10th level. Average width of vein 3 feet, assaying \$15 in gold and \$5.70 in silver, equal to \$20.70 per ton.—No. 5 vein above 5th level. Average width of vein 3 feet 10 inches, assaying \$21.80 in gold and \$1 in silver, equal to \$22.80 per ton.—No. 5 vein above 6th level. Average width of vein 2 feet 6 inches, assaying \$16.25 in gold and \$1.50 in silver, equal to \$17.75 per ton.—No. 6 vein above 10th level. Average width of vein 1 foot 6 inches, assaying \$15.60 in gold and \$3.25 in silver, equal to \$18.85 per ton.—No. 7 vein above 7th level. Average width of vein 2 feet 4 inches, assaying \$19 in gold and \$1.25 in silver, equal to \$20.25 per ton.—No. 9 vein above 7th level. Average width of vein 3 feet, assaying \$15 in gold and \$2.75 in silver, equal to \$17.75 per ton.—No. 9 vein above 8th level. Average width of vein 2 feet 6 inches, assaying \$14.50 in gold and \$1.30 in silver, equal to \$15.80 per ton.—No. 9 vein above 9th level. Average width of vein 2 feet 7 inches, assaying \$30 in gold and \$3.30 in silver, equal to \$33.30 per ton.—Anchor vein above 4th level. Average width of vein 3 feet 4 inches, assaying \$20 in gold and \$1 in silver, equal to \$21 per ton.—Prospecting department. Hamilton vein 8th level west advanced for the month 43 feet. The average width of the vein for the month has been 2 feet 6 inches, assaying \$24 in gold and \$3 in silver, equal to \$27 per ton.—Hamilton vein west raised above 8th level. Total height 12 feet, average width 3 feet 6 inches, assaying \$37.5 in gold and \$14 in silver, equal to \$51.50 per ton. Another raise was put up further east about 12 feet, but it reached the dyke and was suspended.—77 feet vein raised above 9th level. This raise is now 41 feet high; whether it is a branch of the 77 feet vein or a new branch it is difficult to say. Its average width is 5 feet, assaying \$10 in gold and \$4 in silver, equal to \$14 per ton.—No. 9 vein above 8th level. Average width of the vein 4 feet, assaying gold \$12, silver \$3, equal to \$15 per ton.—New vein 4th level west. This drift is now 70 feet long. The vein averages 4 feet wide, and assays \$21.60 gold and \$1.80 silver, equal to \$23.40 per ton.—New vein raised above 4th level. The average width of the vein is 4 feet 6 inches, and its average assay value is gold \$24, silver \$2, equal to \$26 per ton.—Winze below 10th level. This winze is 60 feet deep, and the porphyry surroundings are very hard.—Milling department: Table of work performed for the month of April. Number of tons crushed (wet) 4087.66 tons, ditto (dry) 3651.90 tons. Assay value of the pulp—gold \$14.75, silver \$5.87; total \$20.62. Assay value of the tailings—gold \$4.26, silver \$1.09; total \$5.35. Percentage saved, total 74.05 per cent. Number of Dore bars produced, 15 bars. Number of ounces pure gold produced, 1,814.625 ounces. Number of ounces fine silver produced, 27,413.30 ounces. Value of gold produced, \$36,290.50. Value of silver produced, \$17,818.64. Surplus on bars to date, \$3677.17. Ore sales, \$4300. Miscellaneous revenue, \$645—total, \$62,731.31. Deduct all expenses for the month, \$37,553.39. Estimated profit for month (or at \$4.90 to £ sterling, £5138), \$25,177.92.—Miners' strike. During the month of April a miners' union was formed in this village, and on May 1 the men went out on strike, demanding an additional 50 cents per day for all the men working underground. As your company pay the current rate of wages of Owyhee county their demand has been resisted, and they are still on strike. No work of any kind has been done for the current month, except a thorough overhauling of the mill, which was necessary under any circumstances.—John W. Plummer, manager.

LUCKY GUSS.—The directors have received the following information dated Cripple Creek, May 15:—The junction of the two main veins in the Orpha May shaft has not yet been reached, the angle of intersection proving more acute than was expected. The ore in both veins grows richer with every foot of depth gained, the last assays showing values from \$460 to \$1000 to the ton. The shaft on the Orpha May is 375 feet down, that on Lucky Guss is 336 feet down, and the crosscut to intersect the Orpha May lode is now 60 feet. The vein is expected to be out any day.

MOUNT MAGNET.—The following fortnightly report has been received from the general manager, dated April 27:—Lease 64m. South boundary shaft. The drive north at the 50 feet level is extended 5 feet 6 inches, total from shaft 43 feet. The lode is 3 feet 6 inches wide, yielding 20 dwts. per ton. The south drive is extended 9 feet, total from shaft 36 feet. The reef here is 18 inches wide, of same gold value at north face.—Lease 563. Auriferous dyke shaft. The drive south at 60 feet deep is extended 9 feet. The face is yielding first-class battery material. The north face is

driven 2 feet, producing lode formation of 30 dwts. value. The mine developments are of a most satisfactory and encouraging character. We are accepting delivery of firewood at reduced rates.

MCKENZIE.—Fortnightly report of mine works:—Main engine shaft 120 feet level. South drive on lode advanced 7 feet from shaft. Lode varying from 8 inches to 18 inches wide, estimated yield 1½ ounce gold per ton.—No. 1 shaft. No. 1 stope north advanced 8 feet, total distance from shaft 73 feet. No. 2 stope north advanced 5 feet, total distance from shaft 55 feet. No. 3 stope north advanced 25 feet, total distance from shaft 40 feet. Lode in the above stopes from 6 inches to 15 inches wide, estimated yield 1½ ounce gold per ton. No. 2 stope south advanced 22 feet, total distance from shaft 62 feet (which is the boundary). No. 3 stope south advanced 34 feet, total distance from shaft 44 feet. No. 4 stope south advanced 12 feet from shaft. Lode in the above stopes from 6 inches to 20 inches wide, estimated yield 2½ ounces gold per ton. No. 2 shaft sunk 7 feet, total depth from surface 38 feet. Anticipate cutting the lode in this shaft at 58 feet from surface.—D. W. Welch.

MYROSE.—Mining operations for the fortnight ending May 11: Rows' shaft, 1460 feet level north of crosscut west. There are two stopes in the back of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 1 ounce 4 dwts. 12 grains.—1460 feet level north of sump winze. There are two stopes in the back of this level, the average width of the lode being 6 feet, giving an average assay of 8 dwts. 2 grains.—1360 feet level south of crosscut. This level has been driven 14 feet 6 inches, making a total distance driven of 320 feet 9 inches. The lode is 2 feet wide, assaying 1 ounce 3 dwts. 6 grains. There are five stopes in the back of this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 1 ounce 20 grains.—1360 feet level north of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 6 dwts. 12 grains.—1360 feet level north of sump winze north-east. This level has been driven 18 feet, making a total distance driven of 473 feet. We have struck the lode, and at present can see about 3 feet of it, which assays 1 ounce 6 dwts. 3 grains. The crosscut east in this level has been driven 15 feet 6 inches, making a total distance driven of 59 feet. There are two stopes in the back of this level, the average width of the lode being 3 feet 3 inches, giving an average assay of 1 ounce 10 grains.—1360 feet level south of sump winze. There are two stopes in the back of this level, the average width of the lode being 2 feet 9 inches, giving an average assay of 10 dwts. 18 grains.—1260 feet level north. There are five stopes in this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 17 dwts. 2 grains.—1260 feet level north of crosscut. This end has been driven 21 feet, making a total distance driven of 189 feet 6 inches. The lode is 4 feet wide, assaying 16 dwts. 23 grains.—1260 feet level south of crosscut. The rise in the back of this level has been put up 12 feet, making a total height of 22 feet 6 inches. The lode is 3 feet 6 inches wide, assaying 1 ounce 7 dwts. 10 grains.—1260 feet level south. This level has been driven 11 feet, making a total distance driven of 324 feet 6 inches. There is nothing here to report. There are six stopes in this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 17 dwts. 13 grains.—1160 feet level north. The lode in the stope in the bottom of this level is 2 feet wide, assaying 1 ounce 3 dwts. 6 grains.—1160 feet level north of crosscut. This end has been driven 16 feet, making a total distance driven of 200 feet. The lode is 4 feet 6 inches wide, assaying 1 ounce 12 dwts. 16 grains. The rise in the back of this level has been put up 16 feet, making a total height of 58 feet. The lode is 4 feet wide, assaying 1 ounce 8 dwts.—1160 feet level south. There are five stopes in the back of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 16 dwts. 23 grains.—North of the crosscut east. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 6 dwts. 18 grains.—1060 feet level north crosscut east. This has been driven 8 feet 6 inches, making a total distance driven of 47 feet 6 inches.—620 feet level south. There are two stopes in the back of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 13 dwts. 1 grain.—Crocker's shaft. This shaft has been sunk 16 feet, making a total depth of 74 feet 6 inches below the 1060.—1060 feet level south. The rise in the back of this level has been put up 11 feet, making a total height of 90 feet. The lode is 5 feet wide, assaying 3 ounces.—Driving north of the crosscut east from the 890 feet level north. This end has been driven 4 feet, making a total distance driven of 41 feet. There being nothing of any value, we have suspended the driving of this end, and put the machine to resume crosscutting east. Driven 12 feet 6 inches, making a total distance driven of 33 feet 6 inches.—890 feet level north. The lode in the stope in the back of this level is 5 feet wide, assaying 1 ounce 10 dwts.—890 feet level south. There are six stopes in the back of this level, the average width of the lode being 4 feet 2 inches, giving an average assay of 1 ounce 10 dwts. 11 grains.—780 feet level south. The rise in the back of this level has been put up 7 feet, making a total height from the back of No. 6 stope of 20 feet 6 inches. The lode is 1 foot wide, assaying 1 ounce. There are nine stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 17 dwts. 11 grains.—620 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 8 dwts. 11 grains.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 13 dwts. 14 grains.—Gilbert's shaft. This shaft has been sunk 13 feet 6 inches, making a total depth of 234 feet below the 650.—650 feet level north. The rise in the back of this level has been holed to the winze in the bottom of the 520 feet level north. We have started a crosscut east from the end of the 650 feet level north. Driven 15 feet 6 inches. The lode in the stope in the back of this level is 2 feet wide, assaying 13 dwts. 1 grain.—650 feet level south. This level has been driven 21 feet 6 inches, making a total distance driven of 81 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 15 dwts.—520 feet level north. The lode in the stope in the bottom of this level is 2 feet 6 inches wide, assaying 13 dwts. 1 grain.—520 feet level south. The winze in the bottom of this level has been sunk 2 feet 6 inches, making a total depth of 61 feet. The lode is 2 feet wide, assaying 19 dwts. 14 grains.—360 feet level north. The lode in the stope in the bottom of this level is 2 feet wide, assaying 18 dwts. 6 grains.—290 feet level north. There are three stopes in this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 16 dwts. 10 grains.—180 feet level south. There are two stopes in the bottom of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 12 dwts. 3 grains.—Tennant's shaft. 750 feet level north of the crosscut west. This level has been driven 15 feet, making a total distance driven of 411 feet 6 inches. The lode is 1 foot wide, assaying 16 dwts. 23 grains.—The winze in the bottom of this level has been sunk 11 feet 6 inches, making a total depth of 41 feet 6 inches. The lode is 2 feet wide, assaying 16 dwts. 23 grains. The winze in the bottom of this level has been sunk 11 feet 6 inches, making a total depth of 41 feet 6 inches. The lode is 2 feet wide, assaying 12 dwts. 14 grains.—520 feet level north. The lode in the stope in the back of this level 2 feet 6 inches wide, assaying 11 dwts. 17 grains.—360 feet level north, south of crosscut. There are two stopes in this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 11 dwts. 10 grains.—Schaw's shaft, 450 feet level north of the crosscut. There are two stopes in the back of this level, the average width of the lode being 11 inches, giving an average assay of 18 dwts. 14 grains.—450 feet level south of crosscut. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 5 dwts. 5 grains.—320 feet level north. There are two stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 6 dwts. 13 grains.—McTaggart's shaft. This shaft has been sunk 8 feet 6 inches, making a total depth of 86 feet 2 inches below the 650. The lode is 2 feet wide, assaying 1 ounce 9 dwts. 12 grains. 650 feet level north of the crosscut west. This level has been driven 1 foot 6 inches, making a total distance driven of 17 feet 6 inches. The lode is 1 foot wide, assaying 13 dwts. 1 grain.—650 feet level south of the crosscut west. This level has been driven 12 feet making a total distance driven of 114 feet.—550 feet level north. This level has been driven 1 foot 6 inches, making a total distance

driven of 406 feet 11 inches. The winze in the bottom of this level has been sunk 2 feet 9 inches, making a total depth of 37 feet 3 inches. The lode is 4 inches wide, assaying 1 ounce.—550 feet level south of crosscut west. This level has been driven 10 feet, making a total distance driven of 411 feet 3 inches. The No. 1 winze in the bottom of this level has been sunk 2 feet, making a total depth of 75 feet. The lode is 4 inches wide, assaying 15 dwts. 15 grains. The No. 2 winze in the bottom of this level has been sunk 4 feet, making a total depth of 56 feet 3 inches. The lode is 4 inches wide, assaying 6 dwts. 12 grains.—320 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 11 dwts. 4 grains.—Prospect shaft, No. 2, 117 feet level south. This level has been driven 6 feet, making a total distance driven of 63 feet 6 inches.—Ribblesdale's shaft. This shaft has been sunk 9 feet 6 inches, making a total depth of 92 feet below the 1620.—1520 feet level north. This level has been driven 26 feet, making a total distance driven of 202 feet. The lode is 1 foot wide, assaying 3 dwts. 22 grains.—Crosscut west from the 1060. This has been driven 13 feet, making a total distance driven of 191 feet.—Williams' shaft. Crosscut east from the 173 driving north 17 feet from the end of the crosscut. Driven 5 feet 6 inches, making a total distance driven of 24 feet 6 inches. The lode is 6 inches wide, assaying 7 dwts. 19 grains. Health good.

MOUNT LYELL.—Engineer-in-charge of mine reports for week ending April 17: No. 1 tunnel, north drive. Distance driven for week 2 feet, total 20 feet; no change.—No. 3 tunnel, south drive. Distance driven for week 4 feet, total 475 feet; no change to report.—No. 4 tunnel, south drive. Distance driven for week 3 feet, total 483 feet; no change.—No. 4 tunnel, south drive, No. 3 crosscut. Distance driven for week 1 foot, total 31 feet; drive turning to the right and improving.—No. 4 tunnel, south drive, No. 2 rise. Rise has been put up 1 foot for week, total 14 feet; the ore is maintaining its value.—No. 4 tunnel, south drive, No. 4 crosscut. Distance driven for week 1 foot, total 13 feet.—No. 4 tunnel, south drive, No. 3 rise. Rise has been put up 3 feet for week, total 13 feet.—Surface work. Compressor site. The tubes have been placed in the boiler and expanded, and smoke box, and 60 feet chimney erected, and steam pipes connected with compressor. The stripping of overburden at No. 2 bench has been steadily proceeded with during the week. At No. 2 bench the removal of the overburden by means of No. 2 tunnel has been started, and is proceeding satisfactorily.—Progress report for week ending April 17. Hauling line. Terminal ore bins nearing completion.—Smelter building. Blower room walls in progress. Electric light installation in progress.—Crusher building. Steam engine foundation finished, mounting sampling machine, delivery bin of flux crusher nearing completion.—Blast furnaces. Blast connections now completed, both furnace bottoms finished.—Hot blast stoves. Hanging and fitting together 8 inch pipes.—Babcock and Wilcox boilers.—Both fitted up, and feed pump mounted.—Electric light plant. Foundations for engines and dynamo finished, various leads in progress. Weather very wet, last few days dry.—Railway superintending engineer reports week ending April 16. Progress of work has been considerably hampered by very wet weather. Last bridge between Barnworthy and Smith's section, and the 15 mile in progress. Queen River has been in flood all the week. Gaffney and Harvey have completed their contract for the valley section, and are making good progress with their additional mile.

ROBINSON GOLD.—The directors' monthly report is as follows: April. Mine. Quarts mined, 13,505 tons.—Development. Drives, 785 feet; raises, 166 feet; crosscuts, 135 feet; total, 1086 feet.—Main Incline shaft (west). Sixth level. Driving west on south reef, 20 feet; driving east on south reef, 46 feet.—Seventh level. Driving east on south reef, 35 feet; raise, 32 feet; crosscut, 27 feet.—Eighth level. Driving west on main reef, 57 feet; driving east and west on south reef, 82 feet.—Ninth level. Driving east and west on main reef, 83 feet; driving west on south reef, 74 feet; raise, 14 feet; crosscut, 9 feet.—Tenth level. Driving east on south reef, 32 feet; raises, 56 feet.—Main Incline shaft (east). Fifth level. Driving east on main reef leader, 28 feet; crosscut, 8 feet.—Sixth level. Driving east and west on main reef, 64 feet; raise, 50 feet.—Seventh level. Driving west on main reef and main reef leader, 33 feet; driving west on south reef, 31 feet; crosscut, 19 feet.—Eighth level. Driving east and west on south reef, 9 feet; crosscut, 16 feet.—Ninth level. Driving east and west on main reef and main reef leader, 49 feet; raise, 25 feet.—Tenth level. Driving west on main reef leader, 48 feet; raise, 45 feet; total, 1086 feet.—Mill. Stamps at work, 120; net running time, 24½ days; tons crushed, 13,505 tons; tons per stamp per diem, 4.6 tons; gold won from above, 10,117 ounces 16 dwts.—Chlorination and cyanide works. Gold won from own concentrates (by chlorination), 750 ounces; bullion from tailings (cyanide process), 2216 ounces 5 dwts.; bullion from Stimes, Rand Central Ore Reduction Company (Limited), £783 ounces 14 dwts.; from own ore, 13,867 ounces 15 dwts.; gold from concentrates purchased (by chlorination), 2059 ounces; total, 15,926 ounces 15 dwts.

EXPENDITURE AND REVENUE.			
Crushed 13,505 tons.			
Working expenditure.			
			Cost per ton.
Mining account (including mine maintenance) ...	£8,473 16 3	...	£0 12 6.59
Milling account (including mill maintenance) ...	2,603 3 2	...	0 3 10.27
General maintenance account ...	214 11 11	...	0 0 3.81
General charges ...	1,615 7 2	...	0 2 4.70
£12,906 18 6			£0 19 1.37
Expenditure on mine development, (including main shafts) ...	3,247 0 8	...	0 4 9.70
Ditto on machinery, plant, and buildings ...	2,323 14 2	...	0 3 5.29
£18,477 13 4			£1 7 4.36
Retreatment account:—			
Working expenses at cyanide and chlorination works ...	2,623 10 7
Cost of concentrates purchased (including receiving) ...	7,656 19 4	...	£28.758 3 3
			27,486 12 3
			£56,214 15 6
REVENUE.			
Gold account (mill), 10,117 ounces 16 dwts. ...	£36,041 13 0
Sundry revenue ...	200 0 0	...	£36,244 13 0
Slimes plant account:—			
6440 tons delivered ...	£628 18 0
Company's share of profits to March 30, 1896 ...	293 2 10	...	922 0 10
Retreatment account:—			
Gold account (tailings), 2216 ounces 5 dwts. ...	£7,350 0 0
Gold account (own and purchased concentrates), 2809 ounces 0 dwts. ...	11,517 0 0	...	18,867 0 0
Plus amount received in excess of book entry for February gold ...			
			181 1 8
			£56,214 15 6

The falling off in the bullion from the Slimes plant is accounted for by changing the order of cleaning up. The difference will be recovered at later stages. During the month a break down occurred to the mill engine, whereby 60 out of the 120 stamps had to be hung up for two weeks.

METAL CIRCULARS.

Messrs. JAMES LEWIS and SON'S monthly report on ores and metals, dated Liverpool, June 1, states:—Copper: There was but little change in the value of good merchantable copper until the 12th ult., when large purchases were made by an American house, followed by steadily advancing prices—from £45 7s. 6d. to £47 13s. 9d. for cash on the 27th, about 25,000 tons changing hands, up to £47 13s. 9d. being paid for three months prompt, while £1 per ton was paid for "the call" at £47 10s., of about 1500 tons over this period. This advance inducing realisations, a fall to £47 7s. 6d. ensued on the 28th, followed by a recovery to £47 13s. 9d., and a decline to £47 10s. the same day. Under pressure to sell, down to £47 was accepted to-day, but the purchase of 1000 tons by one firm (following other large purchases by the same firm) arrested the decline, and the day closed with buyers at £47 2s. 6d. Stocks to-day show a decrease of 2455 tons for the month, or 11,165 tons since January 1. The quantity of good merchantable copper now available for consumers and speculators amounts to only about 27,500 tons, and there is every probability of a further gradual and serious diminution of it, as smelters' stocks have seldom been smaller than at present. English refined copper has been in good demand and best selected ingots sold up to £53 per ton, delivered Birmingham. During the last few days purchases of sheets have been made for India. Should these continue, additional inroads on the stock of Chili bars will be made by smelters and manufacturers. American consumers, seeing the large increase in the production of the United States, but not realising the still larger increase in European consumption, deferred their purchases as long as possible, expecting to supply their needs at lower prices. After much negotiation they acceded to the terms of the Calumet and Hecla Company, and paid 11 cents for 10,000 tons delivered over three months. The other Lake companies have held out for a higher price, and have since obtained 11½ cents, at which there are now buyers, but little copper being available for early delivery. The reports of the trades which involve the consumption of copper continue very favourable. In South and West India 172,942 tons have been launched for the first months against 145,355 tons last year. Locomotive engineers are arranging for large additions to their production capacity, while coppermiths, boiler-makers, and foundries are booked up for months to come, and the same is reported from the Tyne. In Birmingham the operative brassfounders are giving notice for an advance of 10 per cent. in their wages, and the ammunition makers are very busy on Government account. It is proposed to lay down four additional telephone lines between London and Paris. A conference is now being held on the subject of a British Pacific cable between Canada and Australia, and a Committee of the United States House of Representatives has reported in favour of a cable to Japan and China. Imports are 9733 tons and deliveries 2,095 tons greater to date than during the same period last year. The total arrivals in England and France for the month have been 9119 tons, and the deliveries 11,614 tons fine. Stocks have decreased 2495 tons, and the visible supply 1684 tons. The increased quantity afloat from Australia represents 3000 tons of argenteiferous leady matte accumulated during six months and sold to arrive some time ago. The arrivals in England from Chili during the month have been 1407, and deliveries 3187 tons fine, and from other countries 4742 and 5156 tons fine respectively. The arrivals here and in Swansea from the United States have been 1914 tons bars, 333 tons ingots, 1233 tons matte, and 43 tons ore, equal to about 3318 tons fine copper, in London 207, and in France 735 tons fine. The Chili charters for the month are advised as 1600 tons, and exchange 1734d. American exports for the month of May amount to about 10,250 tons. They include the Lake copper sold for shipment on the opening of the navigation, and are expected after this month to fall off considerably, the demand for home consumption absorbing more copper than heretofore. Quotations to-day are:—Chili bars and good merchantable copper £47 2s. 6d. for cash, and £47 10s. for three months' prompt buyers. English best selected ingots £52 to £53 10s., and tough cake £51 10s., to £52 per ton, 9s. 3d. for ore of 30 per cent., and 9s. 6d. per unit for Chili regulus or American matte, free from silver. Chili exports to May 31 are:—

	1891.	1892.	1893.	1894.	1895.	1896.
Tons	4839	5284	4704	4734	4973	6051
fine.	4839	5284	4704	4734	4973	6051
Leading on	3009	3761	3387	3497	5029	3850
Chartered to May 31	7897	9025	8071	8281	9832	9941

Gold 79s. 7½d. per ounce standard. Silver fell to 30½d. on the 12th ult., but has since recovered to 31½d. per ounce standard. Quicksilver from second hands is quoted at £8 14s. per bottle. Sulphate of copper is scarce and held for £18 15s. per ton for prompt delivery. Lead, £11 5s. per ton for English, soft Spanish £11 2s. 6d., rich in silver £11 7s. 6d., ore of 70 per cent. £4 14s. 6d. per ton and fine silver value. Antimony firm at £30 to £36 10s. per ton. Nickel offers at 1d. to 1s. 2d. per lb. net. Tin has advanced from £59 15s. to £60 10s. per ton. Bank rate of discount remains at 2 per cent.

Messrs. HARRINGTON and CO'S copper report, dated Liverpool, June 1, says:—Chili charters for the second half of May are advised as 1800 tons against 600 tons for the previous fortnight, making 1800 tons for the month. The total since December 31 last is 9900 tons, and the quantity same time last year was 9450 tons. Exchange 1734d. Since our last issue we have had a very active market, fully 17,500 tons g.m.b.s. having changing hands at £44 6s. 3d. to £47 13s. 9d. cash and £48 13s. 9d. to £48 forward. These higher prices were reached on 28th ult., when, owing to realisations and sellers of three months' prompt preponderating, market became easier, and fair business has been done in cash and short dates down to £47, and for three months' prompt £47 7s. 6d., these rates having been touched to-day generally, but the tone is steeper, with buyers at £47 2s. 6d. and £47 10s. respectively. There is more inquiry for strong copper, and some business has been done in sheets for India, whilst for yellow metal the orders coming in are still low to admit of execution. Strong reports still continue to come from the United States as regards their market, and 11½ cents per lb. seems to be the price for Lake copper with a tendency to advance. The total stock in Liverpool, Swansea, London, and Havre are 31,751 tons, against 37,736 tons on the 19th ult., showing a decrease of 1035 tons for the fortnight, which with a decrease for the previous fortnight of 1480 tons, makes the decrease for the month 2495 tons. The stocks include about 800 tons of copper sold, but not yet delivered to smelters. The visible supply for the fortnight is 36,795 tons, against 36,817 tons on the 19th ult., showing a decrease of 122 tons. The month's figures show a decrease of 744 tons. Best selected matte, factored sorts are firm. Quotations being:—Tough cake £51 to £51 5s., best select £51 10s., to £51 15s. Indian sheets £54 10s., strong sheets £58, and yellow metal sheets 7½d. per lb.—Furnace material. Several parcels have been sold, but particulars are kept private.

	Tons fine.	Tons fine.
Import of Chili copper during the past fortnight	711	against 738 same time last year.
Delivery of Chili copper during the past fortnight	1462	" 1040 "
Import of other copper during the past fortnight	2282	" 862 "
Delivery of other copper during the past fortnight	2378	" 979 "

The total imports of Chili and other copper into Liverpool and Swansea since January 1 have been 33,451 tons; deliveries during the same period 44,324 tons fine; for same time last year the figures were 25,670 and 35,577 respectively.

Quotations are:—

	May 18, 1896.	May 19, 1896.
Chili bars.....	{ £47 3s. 6d. cash and } { £47 10s. 0d 3 months } " Ore	{ £46 13s. 9d. 3 months } " 9s. 9d. to 9s. 10d. } " Regulus or matte ..
Precipitate	9s. 6d. to 9s. 9d. } " 9s. 10d. to 9s. 11d. }	9s. 3d. to 9s. 6d. } " 9s. 6d. to 9s. 9d. }
Chili bars.....	{ £48 7s. 6d. cash and } { £48 10s. 0d 3 months } " Ore	{ £48 13s. 9d. 3 months } " 9s. 9d. to 9s. 10d. } " Regulus or matte ..
Precipitate	9s. 6d. to 9s. 9d. } " 9s. 10d. to 9s. 11d. }	9s. 3d. to 9s. 6d. } " 9s. 6d. to 9s. 9d. }

According to Messrs. Jackson Brothers' figures, the comparative exports of fine copper from Chili and Bolivia to all parts of the world during the first three months of the following years were:—

	1895.	1896.	1897.	1898.	1899.
Tons.	6091	4572	4734	4763	5284
Tons.	6091	4572	4734	4763	5284
Tons.	6091	4572	4734	4763	5284

The relative proportions of the different descriptions of copper being:—

	1895.	1896.	1897.	1898.	1899.
Bar copper	83.94	87.12	88.31	81.82	81.82
Copper regulus	5.64	2.19	3.49	12.83	12.83
Copper ore	5.42	10.69	10.20	5.35	5.35

100 .. 100 .. 100 .. 100 .. 100 ..

	1895.	1896.	1897.	1898.	1899.
Bar copper	94.20	89.652	82.285	76.307	76.307
Copper regulus	5.61	3.23	15.925	12.043	12.043
Copper ore	0.29	1.323	1.789	11.650	11.650

100 .. 100 .. 100 .. 100 .. 100 ..

Tin.—Since our last the market for cash Straits has fluctuated between £80 11s. 3d. and £80 1s. 3d., closing to-day at the lowest, Australian £81 10s., English £84 10s., and Peruvian £84 to £89, according to quality. Sulphate of copper.—Makers are firm at £19 10s. spot, June £19, July £17 to £17 10s. Lead during the past fortnight has been steady, closing quiet at £11 2s. 6d. for Spanish, and £11 5s. to £11 7s. 6d. for English. Spelter.—The market since our last has been firm at advanced prices, closing at £17 17s. 6d. to £17 18s. 9d. for ordinary Silurian brands. Quicksilver.—Since our last the market has been quiet, closing at £8 13s. 6d. per bottle for Spanish. Bar silver.—Prices have fluctuated between 31¼d. and 31½d. per ounce standard, closing to-day at 31¼d. Antimony quiet, star regulus at £30 to £30 10s. per ton, Ore irregular, about £2 to £3 for 50 per cent. good quality and produce. Bank rate of discount.—The rate has remained at 2 per cent. since February 22, 1894.

Messrs. HENRY BATH and SON'S copper report, dated June 2, has the following:—The Chili charters for the last fortnight in May are advised as 1200 tons. The latest exchange is 17½d. The market has been an active one throughout the fortnight, and prices continued to rise until £47 10s. cash was reached on the 17th ult., the following day, though the opening was good, and £47 13s. 9d. paid three months, sellers pressed parcels and took the price down abo 10s. to £47 3s. 6d. cash, and this price has practically ruled since, a large business having been done yesterday therewith, with 8s. 9d. and 10s. paid three months. This morning the market was firm with a large business up to £47 12s. 6d. cash and £47 15s. 9d. forward, closing sellers at 1s. 2d. more. The price of Lake copper in New York was advised as 11½ cents per lb. on the

29th ult., and the market there described as strong. To-day the quotation is 11-50 to 11-82 cents per lb. The shipments from the United States still continue on a large scale, those for May being 10,888 tons. Notwithstanding the large shipments from the States, the stocks on this side are again reduced by a little over 1000 tons, though the visible supply shows a slight increase. The arrivals and deliveries at Hamburg, Rotterdam, and Antwerp during the past fortnight amount to about 1735 tons. The imports of American copper into England have been 2416 tons, and into France 450 tons, or 2865 tons against 629 tons last year. Total actual deliveries for the fortnight have been 5771 tons against 4735 tons imports. Stocks have decreased 1035 tons. Total visible supply shows 36,910 tons against 36,788 tons last fortnight. We have no transactions in furnace material to report.

England and France.	Imports.	D'l'v's.	Stocks.	Afloat & Chartered for.	Total visible supply.
Chili copper at Liverpool, Swansea, and in France	711	1599	27,571	3250	30,821
Foreign copper in London, chiefly Australian and Japanese	644	682	892	1900	2,792
American copper at Liverpool, London, and Swansea	2419	2384	645	—	645
Other copper at Liverpool & Swansea	405	503	937	—	937
American copper in France	450	503	1,282	—	1,282
Other copper in France	110	140	441	—	441

Tons fine copper during the fortnight	4736	5771	31,751	5150	36,901
Against tons on May 19, 1896	4833	5943	22,786	4000	36,788
Against tons on May 2, 1896	4695	6700	34,246	4200	38,446

Total visible supply, June 1	1895.	1896.	1897.	1898.	1899.
Imports from America	54,211	47,580	49,951	53,985	57,308
Total visible supply, June 1	82,567	117,183	69,321	54,831	54,831

Price of Chili bars same date:—£43 5s., £38 13s. 9d., £43 7s. 6d., £43 12s. 6d., £55 5s., £54, £40 17s. 6d., £31 2s. 6d., £39 7s. 6d.

Imports from Chili and Bolivia from January 1 to date	8,538	8,693	8,161	9,144	7,898
Imports from America from January 1 to date	20,155	14,480	18,498	13,250	11,838
Imports from Chili and Bolivia from January 1 to date	7,820	10,808	14,169	15,815	11,790

The shipments to Europe from America from January 1 to date are 48,248 tons against 24,393 for the corresponding period last year. The shipments afloat from America are estimated at 3500 tons. Imports.—The arrivals from the West Coast have been as follows:—

Imports.—The arrivals from the West Coast have been as follows:—						
Ores, Regulus, Bars, Ingots, Barilla,						
At Swansea—						
Sarmiento (s) from Caldera, &c.	527	49	329	—	—	—
At Liverpool—						
Liguria (s) from Valparaiso, &c.	—	—	—	255	—	—
In France—						

Tons	527	49	504	—	—	711 tons.
Corresponding period of 1895	—	—	—	703	250	50 = 1308 "
" " 1894	—	—	—	—	582	— = 582 "
" " 1893	—	—	—	12	119	1240 = 1477 "
" " 1892	—	—	—	55	741	85 = 931 "

Stocks.—We estimate the present available quantities of West Coast copper to be:—

	Ores.	Bars.	Ingots.	Barilla.
At Swansea	13	25,727	194	—
Liverpool	—	260	450	230
In France	—	—	—	—

Representing about 27,571 tons fine copper against 25,459 tons on the 19th ult. against 40,089 .. June 1, 1895, 33,055 .. June 1, 1894, 34,348 .. June 1, 1893, 33,952 .. June 1, 1892, 34,000 = 37,352

Supply of West Coast copper may be estimated from the following figures:—

Actual stocks at Swansea, Liverpool, and in France	27,571
Afloat and chartered for at date of last advices per mail and cablegram	3,250
Total	30,821 against 31,599 tons May 19, 1895.

against same date 1895, stock 40,089 afloat, &c., 3,150 = 43,239

1894, 33,055 " 3,100 = 36,155

1893, 34,348 " 2,600 = 36,948

1892, 33,952 " 3,400 = 37,352

Quotations for West Coast copper are as follows:—

Ores	8/9 to 9/3	8/7½	7/7½	8/7½	9/1
Regulus	£17 12/6 to £17 13/9	£43/5	£38 13/9	£43 7/8	£46 12/6
Ingots	Nom.	Nom.	Nom.	£47 15/	£49 15/
Precipitate	Nom.	Nom.	Nom.	£47 15/	£49 15/

For other descriptions we quote to-day:—Waller's, nominal; English tough about £50 15s. to £51 5s.; Barra Barra, nominal; English manufactured about £37 10s.; best selected about £51 10s. to £52; India sheets about £54 10s.; g.m.b. copper £47 12s. 6d. to £47 13s. 9d. cash and £47 18s. 9d. to £48 three months; Sulphate of copper £19 cash, £18 13s. to £17 10s. forward. Tin quiet, closing at £50 1s. 3d. cash, £50 11s. the month; Spelter firm, £18; English about £17 7s. 6d. Blende of 50 per cent. in worth about £21 3s. 6d., and calcining about £21 10s. Lead quiet, £11 1s. 3d.; with silver, 50 to 80 ounces, about £11 5s. to £11 10s. Lead ore of 70 per cent. is worth about 45 per ton.—Pig iron. Closing quotations for Scotch pigs are 48s. 10d., Middlesbrough 37s. 6d., hematite 47s. 4½d. cash, Antimony quiet, Star Regulus about £210, ore £23 to £23 10s. for 50 per cent. good quality and produce, crude about £14 per ton. Quicksilver very dull, official price is £8 15s., seconds at 2s. to 2s. 6d. less. Bar silver 31¼d. per ounce standard.—Discount, The Bank remains at 2 per cent.

ANCIENT MINING.

WITH ESPECIAL REFERENCE TO THAT CARRIED ON IN GREAT BRITAIN.

By A. COOPER KEY (Student).

(Continued from page 659.)

THERE is some evidence to support the theory that the Rio Tinto Mines in Spain were worked by the Phoenicians and Carthaginians, and strong evidence as to Roman working. It is instructive to note that the skulls which have been found in the derelict mines, and presumably, almost assuredly, those of the slaves employed, are of an African type. The point here, of course, is that only slaves would have been disposed of in the mines, and that the managers, under the Carthaginian régime, would never have been abandoned in this manner, except that it might have been impossible to extricate them, after an accident, or owing to other causes. The evidences of Roman work in these mines are of a date about a century after the Christian era. The mines were carried on by them until about 400 A.D., when they were broken up by the Visigoths. Through 11 centuries their history is unrecorded. In 1547 Philip II. carried on negotiations with regard to the reopening of the mines, but unsuccessfully. In 1725 the Rio Tinto Mines were leased (by the Crown) to Siebert Wolters, a Swede, from whose representatives they reverted to the lessors in 1783. From this date for about 90 years they were worked irregularly, sometimes by the Government, and sometimes under lease. These efforts were, however, never crowned with success. In 1873 the mines were offered for sale by public tender, and were acquired by Messrs. Matheson and Co., who constructed the present company, known as Rio Tinto (Limited). Some of the galleries in the mines of this district are round, and others square, and it has been thought that the former are of Phœnician character, and the latter of Roman origin.

At San Domingos, in Portugal, the mines at which place are now being worked by Messrs. Mason and Barry, several Roman relics have been found, including coins, tools, and some large drainage wheels. There are, too, vast heaps of scoriae at these mines, as in nearly all others in Spain and Portugal, which is in-

dicative of ancient working. Similar relics have been found in the Tharsis Mine. Iron ores were extensively worked in the Island of Elba by the Greeks about 700 B.C.

5. General Observations.—Whether iron or bronze was first used is a question which has given rise to considerable discussion among archaeologists, philologists, and metallurgists. Professor Max Müller, reasoning on a philological basis, argues that the "Greek language was spoken before the use of iron, and that iron was certainly not known previous to the breaking up of the Aryan family." The pivot on which this deduction swings is the following fact:—"In the Homeric poems, knives, spear points, and armour are still made of copper." St. John V. Day controverts this hypothesis, remarking that sufficient importance has not been attached to the testimony of the Coptic and Egyptian languages, from which he argues that iron should have the preference.

The priority of bronze has generally been reasoned from the quantity of relics composed of that metal, and the lack of those made of iron. In drawing such a conclusion, however, it should have been remembered that iron is very rapidly corroded by oxidation, while bronze is but slowly acted upon. Thus, unless the iron articles had been so placed as to receive the minimum effect of the atmosphere, no trace of them would now remain. This is the position in which they have been discovered—viz., in the joints of the Great Pyramid, in the driest country of the world, Egypt. Reasoning on purely metallurgical grounds, Dr. Percy says:—"It is reasonable to suppose that the age of iron preceded the age of bronze." "Of all metallurgical processes, the extraction of malleable iron may be regarded as the most simple, and its reduction requires a degree of skill very far inferior to that implied in the manufacture of bronze." In early days iron was more costly than bronze. Doubtless this fact has something to do with the sparing use of the metal. Iron was smelted by the means of charcoal, which was used in lieu of wood in its natural state, as it was lighter, and consequently less expensive to transport. Bronze was, no doubt, the first metallic compound known to mankind, and so extensively was it employed, that in the chronology of archaeology is made the important division of the Bronze Age, which is subsequent to that of stone, and either coeval with or anterior or posterior to that of iron. This alloy (of copper and tin) was much harder than copper, and was consequently much used for making swords, spears, and hatchets. These weapons were not forged, as at the present time, but were cast in moulds and then hardened by grinding on stones. The components of the alloy varied in their proportions, as the following analyses show:—

	Copper.	Tin.
Per cent.	Per cent.	Per cent.
An ancient sword	89	11
An ancient sword	85	15
An ancient weapon like a cutlass	90	10
A coin of Alexander the Great, 335 B.C. ..	86.72	13.14
A coin of Philip V., 200 B.C. ..	85.15	11.10
A coin of Athens	88.41	9.95
A coin of Ptolemy IX., 70 B.C. ..	84.21	15.69
A coin of Pompey, 53 B.C. ..	74.11	8.66
A coin of Atilia family, 45 B.C. ..	68.72	4.77
A coin of Augustus and Agrippa, 30 B.C. ..	78.58	12.91

(The proportions of the other ingredients are omitted.)

Tin and lead appear to have been confounded by the ancients since the names of the metals are often used indifferently in Hebrew, Arabic, Greek, and Latin. The Romans evidently considered them different forms of the same metal, as they termed tin "plumbum album" or "plumbum candidum" (white lead), while lead proper was called "plumbum nigrum" (black lead). The word "stannum" definitely assumed its present meaning in the fourth century (Kopp).

6. Mineral and Metal Workings of the Britons.—It is probable that the Britons were acquainted with iron and methods of reducing its ores previous to the invasion of Caesar. The iron ore was probably worked in Sussex. The furnaces employed were, it is thought, simple conical structures, with small openings for the admission of air, and a large one for the escape of the products of combustion. They were erected on high ground, so that the wind might assist combustion. The fire being kindled, successive layers of ore and charcoal would be placed in it, and the heat regulated by opening or closing the apertures below. The resulting material was an imperfectly malleable iron, as the temperature never rose sufficiently high to fuse the ore. These furnaces are termed "air bloomeries;" similar ones were used by the natives of Africa, and, in a modified form, they are retained in Spain along the coasts of the Mediterranean where rich ores are worked.

7. Roman Working in Britain.—Throughout the mineral localities of our country exists at this date visible proof that the Romans were workers of minerals to a large extent. In the many scoriae or debris heaps scattered about in various counties are found Roman coins and Roman war implements. Their acquaintance with coal seems to be proved by the mixture of lumps of coal and coke cinders with cement and other materials in Roman floorings and walls. Whether the Romans worked tin mines in Cornwall is a controverted point. There are some grounds for supposing that they did; their workings, however, were of limited extent. The following evidence is of importance. In the mine called Baldue (the black work about a mile from Chacewater) occurs what is believed to be an example of Roman engineering, for the "perfection of the arch of the adit or level appears to justify this conclusion." "In the same parish remains conjectured to be of Roman origin have also been found." At other places in the county—Hayle, Godolphin, Leeds Town, St. Hilary—coins, urns, pottery, stones, and other relics pointing to Roman occupation have been discovered. Mr. William Borlase, in his "Historical Sketch of the Tin Trade of Cornwall," has gone thoroughly into the evidence as to the Roman trade, but it would be impracticable here to recapitulate the various points brought forward by him.

In Yorkshire evidences of Roman mines have been discovered at Greenhow Hill, near Pateley Bridge. In Northumberland and Durham, particularly near Allendale and on Alton Moor, large masses of Roman scoriae have been discovered, and in many cases lead has been remuneratively extracted therefrom. Gold was undoubtedly worked in Wales, in the neighbourhood of Llandovery and Lampetar, at Gogofau, by the ancients, and possibly by the Romans. In the first instance the working was by means of large quarries and caves, but in later times lofty galleries were driven. It is believed that the well-cut galleries are Roman, and that the open-cast works are attributable to the British. In Lincolnshire, near the village of Claxby, have been found "fragments of iron slag, calcined ore, and charcoal, associated with Roman pottery." Claxby is situated on the iron ore bearing rocks of the Lincolnshire lower lias clay.

(To be continued.)

The COROMANDEL GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold produced in April for £1731 17s. 9d.

The CHAMPION REEF GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold produced in April for £25,938 4s. 1d.

The MYSORE REEFS (KANGUNDY) COMPANY (LIMITED) have sold the gold obtained in April for £290 2s. 10d.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (June 4):—The share market continues dull and neglected. Tin has not shown any improvement during the week, and prices remain much the same. Quotations:—Basset Mines, 1 to 1½; ditto (5s. paid), 5s. to 6s.; Blue Hills, (call paid) 1 to 1½; Carn Brea, 9s. to 10s.; Devon Consols, 1 to 1½; Dolcoath, 15s. 6d. to 16s.; ditto (7s. 6d. paid), 5s. to 6s.; East Pool, 2½ to 3; Killfret, 9s. 6d. to 10s. 6d.; Levant, 4 to 4½; Polberron, 8s. to 9s. 6d.; West Kitty, 1½ to 2; Wheal Grenville, 6 to 6½; Wheal Kitty, 2s. to 2s. 6d.; Wheal Metal, 3s. 6d. to 4s.

Messrs. ARBOTT and WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of June 4:—Very little doing in anything, and until tin moves it is not likely that shares will command much attention. Quotations herewith, but in the absence of business they are mostly nominal, and good prices can neither be bought or sold:—Blue Hills, 1s. to 2s.; Basset Mines, ½ to 1; Carn Brea, ½ to 1; Dolcoath (fully paid), 6d. to 1s. 6d.; ditto (7s. 6d. paid), 5s. to 6s.; East Pool, 2½ to 3; Killfret, 11s. 6d. to 12s. 6d.; Polberron, ½ to 1; South Crofty, ½ to 1; Tincroft, ½ to 1; West Kitty, 2 to 2½; Wheal Grenville, ½ to 1; Wheal Kitty, 1s. to 2s.; Wheal Metal (3s. paid), 3s. 6d. to 4s.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market street, write June 4 (noon):—As our report last week was a simple negative, owing to circumstances peculiar to Manchester in Whit week, we have taken our comparison of values all round with the figures of a fortnight ago—hence we need do no more than refer readers to the changes enumerated below. The feature, in the meantime, is to be found in Midlands, which, after a fair set-back from best figures, retain a rise of at least 7 on the fortnight. With conversion prospects, these in good quarters are still considered distinctly cheap. On the whole, despite the little relapse on profit taking, home rails are, with very slight exceptions, all on the upward tack, and bid fair to follow this up. Other descriptions of rails are irregular, Grand Trunk issues and Canadians generally being better all round, but Americans lower for the most part. The "bell wethers" in Americans quote nearly or over \$1 down, but for the rest fractional declines are the rule, from which the exceptions are few. Markets other than rails speak for themselves by the changes given hereunder:—

ENGLISH RAILS.—Higher: Caledonian, ½; ditto Deferred, ½; Great Eastern, 2½; Great Northern, ½ to 1; Great Western, 2½; Lancashire and Yorkshire, 3½; Brighton A, 3½; Chatham, 3½ to 4½; London, 1 to 1½; Sheffield A, 1; Midlands, 7; North British, 3½; Berwick, 1½.—Lower: Districts, ½; Dover A, ½.

CANADIANS AND AMERICANS.—Higher: Canadian Pacific, ½ to 1; Trunk Ordinary, 3-16; ditto Guaranteed, 2; ditto First Preference, 1½; ditto Second Preference, 1½; ditto Third Preference, ½; Mexican Rails, ½; ditto First Preference 1½; ditto Second Preference, ½; Central Pacific, ½.—Lower: Atchafalpa, ½; ditto Income Bonds, ½; Milwaukee, ½; Denver, ½; ditto Preference, 1; Louisville, ½; New York Central, ½; Erie, ½; Ontario, ½; Reading, ½; Union, ½ to ½; Atlantic First, ½.

CONSOLS.—Higher: Two and Three-quarter per Cent., 1½.

COLONIAL STOCKS, &c.—Higher: New South Wales Inscribed, 1; New Zealand Inscribed, ½; Victoria Inscribed, 1.

CORPORATION STOCKS AND DEBENTURES.—Higher: Douglas Three and a-half per Cent., ½ to 1½; Manchester Four per Cent., ½; Stockport Three per Cent., 2½; Wigan Three per Cent., ½.

FOREIGNERS.—Higher: Argentine Six per Cent., ½ to 1; Argentine Five per Cent., ½; Italian Rentes, 1½ to 1½; Mexican Six per Cent., 1; Spanish Four per Cent., ½; Uruguay Three and a-half per Cent., ½.—Lower: Portuguese Three per Cent., ½; Turks, 1891, ½; Turks Converted D, ½.

BANKS.—Higher: Adelphi, ½; Bank of Liverpool, ½; Imperial Ottoman, ½; District, ½ to ½; Union of Manchester, ½.

INSURANCE.—Higher: Lancashire Inscribed, 1-16 to ½; Palatine Inscribed, ½; Reliance Marine, 1-16; Royal, ½; Times Mutual, ½ to 1.—Lower: Boiler Inscribed and Steam Power, ½ to ½; British Law, ½; Manchester Fire, 1-16; Thames and Mersey, 1-16.

TELEGRAPHS AND TELEPHONES.—Eastern Preference, ½; National Telephone, ½ to ½.—Lower: Anglo-American Deferred, ½; Eastern Extension, ½; West India and Panama, ½.

COAL, IRON, &c.—Higher: Boleckow Vaughan, £20 paid, 1; ditto, 3-16; John Brown, ½; Cammells, 6; Ebbw Vale, 1-16.—Lower: North Londale, ½; Sheepbridge "A," ½; Tredegar "A," ½.

BRICKS.—Higher: Chester's, 1; Manchester, ½; Parker's, 1½; Howell's, ½; Threlfalle, 2½.—Lower: Allsopp's, 1; Bent's Ordinary, ½.

MISCELLANEOUS.—Higher: Tower Ordinary, 6d.; Bryant and May, ½; Chadwick Ordinary, 4; ditto Preference, 2½; Cont's, 6½; ditto; and Winkworth, ½; Eastman's, ½; Howard and Bullough, ½; Pacific Steam, ½; Raston Proctors, ½; Manchester Trust, 3s.; Northern Assets, 1s.—Lower: Blackpool Winter Gardens, ½; Hetherington's, ½; Whitworth's, ½ to ½; Imperial Continental Gas, 3 to 6.

LATER (4 p.m.)—Home rails have come into favour again, and prices have strengthened somewhat. In Canadians, Trunks a little lower. Mexicans nothing much doing. Americans began fairly well, and held up to opening, or rather are finishing about firm.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

OVERLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (June 4), writes:—During the past week the markets have been very active, and prices rising owing to the better news from the Transvaal, improving reports of trade, and the upward tendency of the metal markets.

In shares of coal, iron, and steel companies prices are irregular. The Marbella output for May was 2336 tons. Steel Company of Scotland improved to 6½, but have relapsed to 5½. Cowdenbeath is at 16½, Marbella 41s., Niddrie 42s. 6d., Wilson's and Clyde 41s.

In shares of copper concerns prices are improving, owing to the favourable statistical position and prospects of the market. Arizona is at 61s. 6d., Mount Lyell 8½, Tinto 23½, Tharsis 117s. 6d., Central 12s.

In shares of gold and silver mines a considerable amount of business has been done on the announcement that the South African political prisoners with the exception of four had been released. The whole market assumed a stronger tone and prices advanced considerably. Chartered touched 85s. 6d.; Consolidated, 13½; East Rand, 9½; Randfontein, 70s.; and Sheba 43s. 6d. Broken Hill have announced the usual dividend of 1s. for June. The shares have improved to 53s. 6d. Hauraki will pay a dividend on June 24, and Gold Estates of Australia 3s. interim on July 1. Nanydroog fell from 80s. to 70s. 6d. on rumours of cholera at the mine, but have recovered to 71s. 6d., and it is said the new stamps will be working next month. East Rand Gold, Coal, and Estates, May's No. 2 South, and Malacate shares offered.

African Recovery are at 32s. 6d.; Associated (W. A.), 3s. 6d.; Afrikaner, 31s.; Brownhill Proprietary, 20s. 6d.; Balmghat 4s. 6d.; Big Blow, 11s. 3d.; Bendigo Gold Fields, 11s. 6d.; Cronus 47s. 6d.; Caratal, 1s. 3d.; Charterland, 17s.; Crocydon Consols, 4s. 6d.; Doornkop, 5s.; East Orion, 4s.; Emma, 2s. 3d.; East-End, 24s.; Faib, 12s. 6d.; Graaskop, 4s. 3d.; Ginsberg, 42s. 6d.; Gold Fields of Mysore, 27s. 6d.; Golden Horse Shoe, 42s. 6d.; Gold Creek, 5s.; Hainault, 61s. 6d.; Hannan's Proprietary, 57s. 6d.; Klerksdorp, 17s.; Kathleen, 4s.; Lake View 12s. 6d.;

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In shares of miscellaneous companies there has been a fair amount of business doing, and prices are generally higher. Young's paraffin Oil Company has issued a satisfactory report, but no dividend is to be paid, and the balance of £20,037 carried forward. Broxburn Oil are at 10½, Clifton's, 12s.; and Harmand, 2s. Glenburg Fire Clay are at 8½; Lawe's Chemical, 6½; and Nobel Dynamite, 17½, ex. div.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of June 4.—The only important change in Scotch Railway ordinary stocks since last week's report is in Glasgow and South Western, which has advanced from 131 to 136½. Preference stocks continue in demand, Insurance shares show a fair general improvement, Caledonian have risen from 28 to 29, English and Scottish Law from 12 13-16 to 12 15-16, Liverpool and London and Globe from 53½ to 54½, North British and Mercantile from 37½ to 39, Royal from 54 to 55½, Scottish Life from 39s. to 40s., Scottish Metropolitan Life from 41s. to 41s. 6d., Scottish Union A, from 90s. 3d. to 91s. 6d., Standard Life from 55½ to 58. Life Association have declined from 45½ to 45. Bank Stocks have been firm, British Linen, which is paying an increased dividend, has advanced from 421 to 430, Clydesdale from 21½ to 21½, Commercial from 75½ to 76, National from 358½ to 360, Royal from 230 to 233, Union from 22 11-16 to 22 13-16, British South Africa Chartered shares have risen from 63s. to 82s., Lothian Coal Preference shares have improved from 7½ to 8½, Niddrie Coal from 41s. to 43s., Steel Company of Scotland shares have fallen from 6½ to 5½, Arizona Copper from 62s. 9d. to 61s. 3d. There has been an advance in Rio Tinto and Tharsis, in Mysore Gold, and Pumpherton Oil. Coats have further risen from 45½ to 49½.

THE IRON AND STEEL MARKET.

The following is the Quarterly Report of Messrs. BARRY, HEAD, and Co., June 4:—

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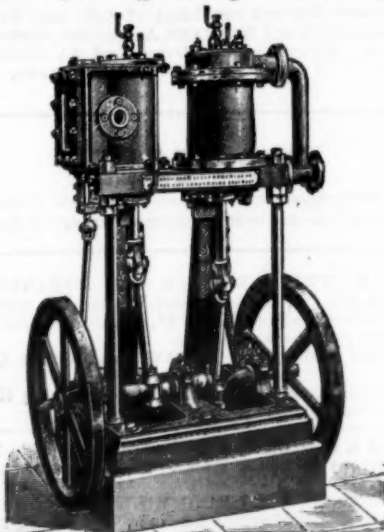
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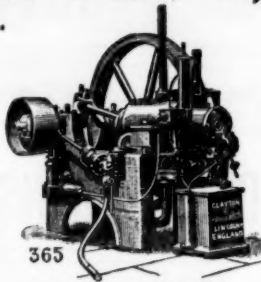
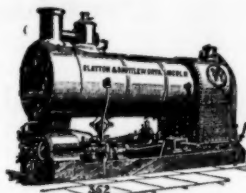
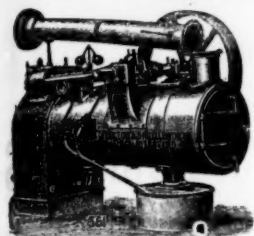
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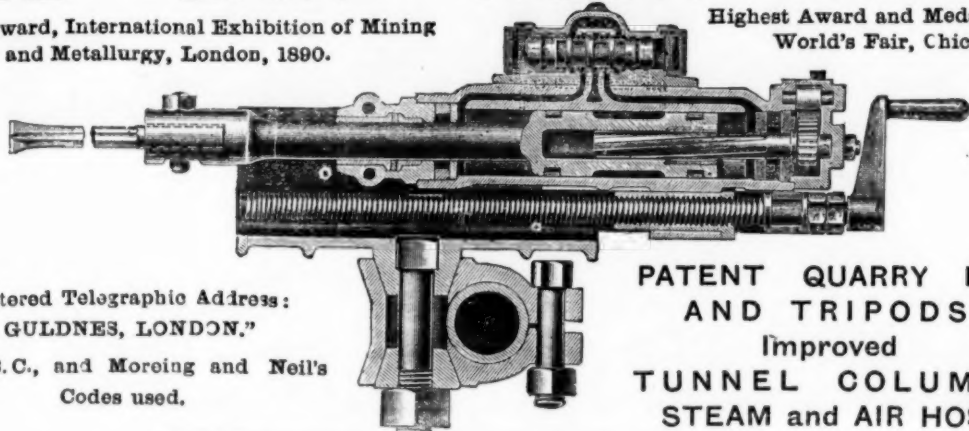
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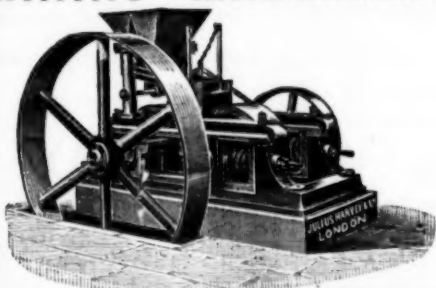
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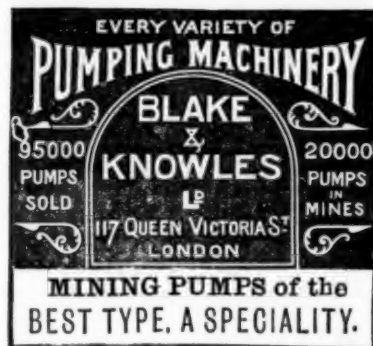
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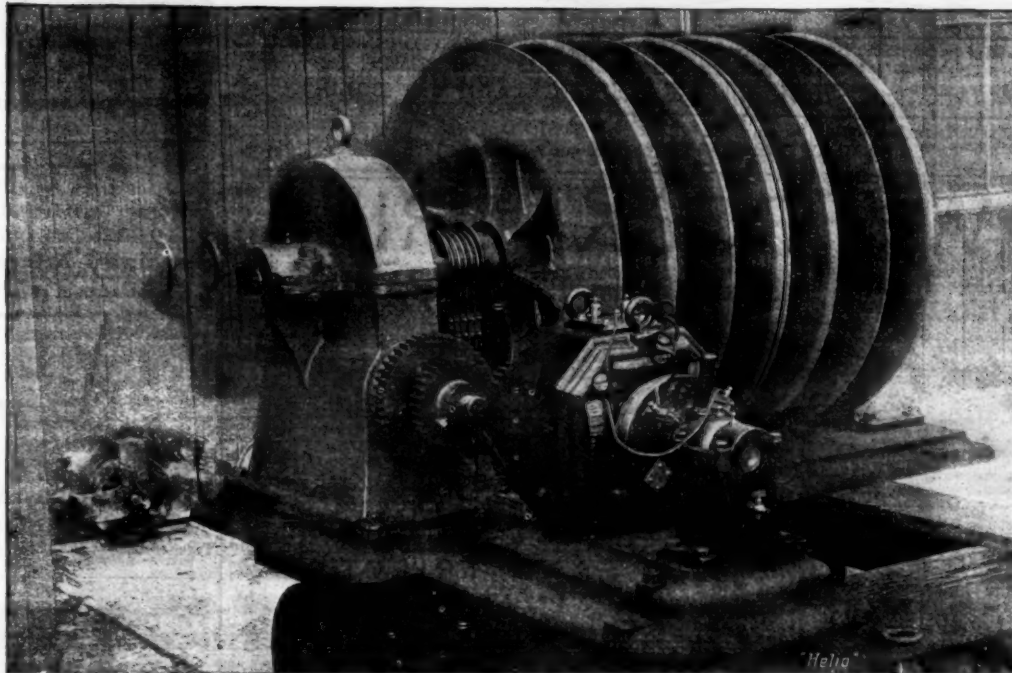
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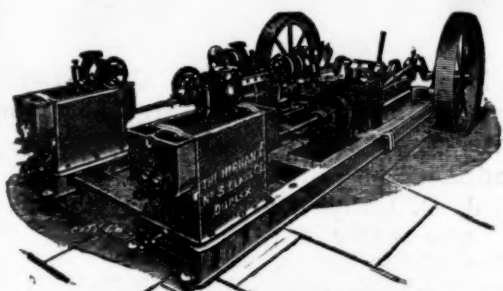
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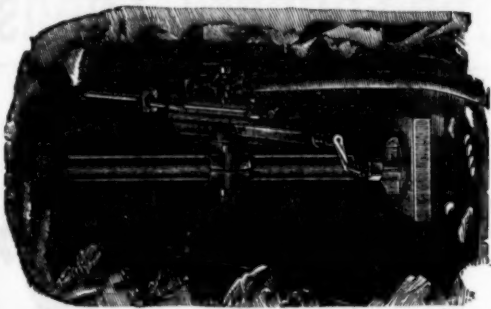
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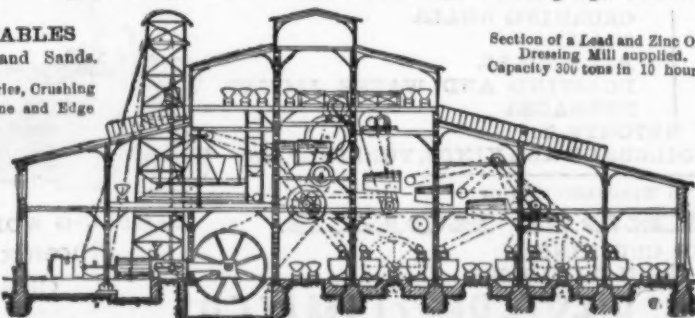
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